

THE COMMUNICATIONS PROBLEM



The Pro and Con Monthly

APRIL, 1930

Existing Wire and Wireless Systems

Proposed Federal Communications Commission

Objects of the Coughs Bill

Pro and Con Discussion

Shall We Have a Communications Commission?

Regular Departments

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The Congressional Digest

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Contents for This Month

Legislative Department:

Chronology of the Development of Communication by Wireless	98
Samuel F. B. Morse's Appearance Before the U. S. Senate in 1842, by Hon. O. H. Smith.....	101
The Federal Radio Commission, by G. F. Wisner	102
The Department of Commerce Radio Service, by W. D. Terrell	104
The Interstate Commerce Commission and the Telegraph and Telephone Service, by Hon. Joseph B. Eastman	105
The President's Control of Cables, by Hon. William R. Castle, Jr.....	106
The Control of International Cable and Radio Communications, by G. Stanley Shoup.....	107
Proposed Federal Communications Commission, President Hoover's Views.....	110
Pros and Cons on the Couzens Bill, by Wm. C. Green	110
Should the Congress Create a Federal Communications Commission? Hon. James Couzens (Pro) vs. Capt. Stanford C. Hooper (Con).....	111
Should the Zone Provisions of the Present Radio Law Be Retained? Hon. Eugene O. Sykes (Pro) vs. William S. Hedges (Con)	112
Should Communications Services Be Permitted to Consolidate? Owen D. Young (Pro) vs. Newcomb Carlton (Con)	113
Ellery W. Stone (Con).....	114
Sosthenes Behn (Pro) vs. Capt. Stanford C. Hooper (Con)	115
Should Through Telegraph-Radio Routes Be Made Compulsory? General James C. Harbord (Pro) vs. Newcomb Carlton (Con)	117
Is the Radio Corporation's Patent Control Against Public Interest? Oswald F. Shutte (Pro) vs. General James G. Harbord (Con)	118
B. J. Grigsby (Pro) vs. Col. Manton Davis (Con)	119

This Month:

Action Taken by Congress, February 21 to March 20, 1930.....	123
--	-----

Executive Department:

The White House Calendar, February 21 to March 21, 1930	126
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Back numbers of The Congressional Digest are indexed in the Readers' Guide

The Congressional Digest

April, 1930

Vol. 9 - No. 4

LEGISLATIVE DEPARTMENT

THE PRO AND CON FEATURE ACTION BY HOUSE AND SENATE LEGISLATIVE NEWS ITEMS

The Communications Problem

Telegraph, Telephone and Cable
Present Control of Radio

The International Situation
Provisions of the Couzens Bill

By an act approved February 23, 1927, Congress created the Federal Radio Commission. At the end of the year the problem of radio regulation was still in a highly controversial state and Congress extended the life of the Commission another year. Finally on December 18, 1929, Congress passed an act extending the life of the Radio Commission as a licensing authority "until further provided for by law."

This uncertain situation, together with the increasing importance of international communications by cable and wireless resulted in the decision by members of Congress that the time had come to go into the entire problem of wire and wireless communications and, if possible, to set up a single government agency for their regulation.

Divided Control of Communications

The control of radio is divided between the Radio Commission and the Department of Commerce; the control of telegraph and telephone lines is in the Interstate Commerce Commission, while the control of the licensing of cable landings in American territory is in the hands of the President.

Senator James Couzens, Mich., R., Chairman of the

Senate Committee on Interstate Commerce, introduced on April 18, 1929, a bill, S. 6, creating a Federal Communications Commission, and bringing under its jurisdiction all the regulatory powers over communications now distributed among various government agencies.

A Federal Communications Commission

The Couzens Bill, as introduced, was intended to be merely the framework of ultimate legislation. In order to obtain the views of all interested parties before the final draft of the bill was made, the Senate Committee on Interstate Commerce ordered hearings on the Couzens bill. These hearings began on May 8, 1929, were suspended during the summer and autumn of that year, were resumed in December and ended February 8, 1930.

The Committee on Interstate Commerce is now engaged in drafting another bill which, when completed, will be introduced by Senator Couzens as a substitute for his original bill.

To his bill, S. 6, Senator Couzens introduced an amendment providing for the control and regulation of interstate transmission of electric energy, but he later decided to deal first with communications and leave the power question to subsequent legislation.

Chronology of the Development of Communication by Wire and Wireless

1837—September 28, Morse patented the telegraph in the United States of America.

1838—February 20, Morse demonstrated his invention before President Van Buren and the entire cabinet.

1842—The first cable in the United States was made by Morse and laid in New York Harbor, over which he sent electrical impulses through an insulated copper wire.

1843—A grant of 6,000 pounds was made by Congress for an experimental telegraph line between Washington and Baltimore.

1845—Ezra Cornell laid a 12-mile cable in the Hudson River, connecting Fort Lee and New York. This worked for several months.

1850—The era of submarine telegraphy dawned when a cable was laid between Dover and Calais. This was broken by the trawls of a fisherman.

1851—September, a cable was successfully laid from Dover to Calais and opened to the public in the following November.

1854—Another cable between Dover and Ostend was required to meet traffic between England and the Continent. Other cables followed and in less than 10 years from the commencement of its operations over the first channel cable, the Submarine Telegraph Company was working at least 6 cables to the Continent.

1854—Attempts were made to lay a cable between Cape Breton and Newfoundland.

1856—A cable was successfully laid across the Gulf of St. Lawrence, thus connecting St. Johns with Canada and the American lines.

1856—The Atlantic Telegraph Company was formed by Cyrus Field, an American, Mr. J. W. Brett and Mr. Charles Bright, in London. It took over the defunct New York, Newfoundland and London Telegraph Company which had exclusive land rights in America. Both the British and United States Governments gave subsidies, in return for free transmission of their messages, with priority over others. Less than one-twelfth of the total capital was American, the rest was English.

1857—March 3, Congress passed an act authorizing the building of two ships for cable laying and providing for the regulation of cable rates.

1857—August, An attempt was made to lay a cable by the frigate Niagara and the British ship of war Agamemnon, but about 300 miles from the Irish coast the cable parted, owing to a strain caused by a sudden dip of the sea-bottom.

1858—The same two ships, each with half the cable on board, steamed to a point in the Atlantic mid-way between Valentia, Ireland and Hearts' Content, Trinity Bay, Newfoundland, spliced the cable, and steering in opposite directions, safely landed the ends at their destinations on the fifth day. The Atlantic cable was 2500 miles long, weighed 1 ton a mile and cost \$1,256,250. The current was so weak that a message of 90 words from Queen Victoria to President Buchanan took 67 minutes to transmit, and the cable soon ceased to transmit signals.

1859—British Government appointed a committee of eminent scientific men to investigate all phases of submarine telegraphy.

1864—On July 1, Congress passed an act authorizing the construction of lines through the territories of the United States to the boundaries of British America to connect there with lines previously authorized by Great Britain and Russia. The act provides that the American Government is to have priority in the use of the lines within its territory and that the usual rates in Europe and America shall prevail.

1865—The Anglo-American Telegraph Company was formed and another attempt was made to lay an Atlantic cable. The cable broke after 1200 miles had been paid out.

1865—March 2, the first message was sent by cable from Calcutta to London.

1866—July 27, a cable was successfully landed at Hearts' Content, Newfoundland. This cable worked satisfactorily until 1872.

1866—September 7, the cable that had broken in 1865, after being raised, was landed in Newfoundland.

1866—On May 5, Congress passed an act authorizing the International Ocean Telegraph Company to lay a cable from Florida to Cuba with sole privileges for fourteen years.

1867—On March 29, Congress granted a permit to the American Atlantic Company to lay a cable from the United States to Europe with monopoly privilege for twenty years.

1869—The French Cable Company applied for a landing license at Duxbury, Mass. The company possessed a monopoly from the French government extending over a term of years and President Grant refused to grant the license until the objectionable clause was stricken from the agreement, and one substituted which guaranteed entire reciprocity of cable rights between the United States and France.

1870—British Government purchased the entire land telegraph system of British Isles and the capital liberated which was about \$50,000,000, was largely reinvested in submarine cable ventures.

1870—During the years that France was having trouble with the Germans, the British succeeded in obtaining control of the few French cables then laid and in forcing the French government to make valuable landing concessions.

1871—After reaching South Africa the English cables were pushed on to Hongkong and the Orient.

1873—Congress inserted in the naval appropriations act the provision authorizing the Secretary of the Navy to "make soundings between the western coast of the United States and Japan for scientific purposes, and for the purpose of determining the practicability of laying a telegraph cable between these points."

1873—April 26, the Imperial Brazilian government granted a monopolistic concession to the British corporation, the Telegraph Construction and Maintenance Company, Limited.

1875—In his message to Congress President Grant recommended four propositions affecting cable landings in this country: 1. That countries refusing equal privileges for American cable companies not be allowed to land cables in this country; 2. That no cable be allowed to land that was not prohibited from consolidating with other lines to regulate cable tolls; 3. That all lines give precedence to official government messages; 4. That power be reserved to the two governments concerned to fix a limit to cable rates.

1876—February 14, Alexander Graham Bell applied for a patent for his telephone.

1876—March 10, the first words were spoken over a telephone of Alexander Graham Bell in Boston.

1876—On August 15, Congress passed an act giving to Celso Caesar Moreno and others the right to lay a cable between the American and Asiatic coasts, with certain restrictions concerning rates and similar privileges for all governments.

1877—First inter-connection of telephone lines by means of a switchboard was made in Boston.

1877—On February 20, Congress gave to Ferdinand C. Latrobe and others the right to lay cables between America and Europe on conditions that the prevailing cable rates were to be reduced by the company from 3 shillings to one shilling, British, per word, and "that no amalgamation, union or sale of cable interests established under this act shall be made to any existing European or other cable-companies."

1877—In August, when there were 778 telephones already in use, the Bell Telephone Association was formed, the only share holders being Bell, Hubbard, T. A. Watson, and Thomas Sanders.

1877—November, the cables were so much used that James Gordon Bennett of the New York *Herald* signed a contract with the cable company for one year, paying \$3,750 a month for political and general use. The rate was then \$5 a word with a minimum of twenty words per message.

1877—The Direct United States Cable Company, a British corporation (which had taken over the rights of the American Atlantic Cable Telegraph Company of New York) was granted permission to land a cable at Rye Beach.

1878—In January, the first commercial switchboard was installed at New Haven, Conn., with eight subscribers.

1879—October 24, the Compagnie Francaise du Telegraphe de Paris a New York applied for permission to land a cable on Cape Cod.

1897—August 26, the United States of Columbia granted monopolistic concessions to Fralick, Murphy & Co. of Philadelphia. From now on monopolistic concessions were granted to American cable companies by Mexico, Nicaragua, San Salvador, Peru, Columbia, Ecuador, Guatemala, and Costa Rica.

1881—The first American-owned transatlantic cable was laid by Jay Gould.

1882—March—Congress granted a permit to Samuel L. M. Barlow and others to lay cables between America and Europe with the same general restrictions as those granted in 1876 with the specific provisions "that no amalgamation, combination to establish rates, union, or sale of cable interests established under this act, shall be made to any European or other cable companies,"—and that the United States Government should have exclusive use of the wire under certain conditions.

1883—December—permission was granted J. W. Mac-

kay and J. G. Bennett to land a cable in the United States.

1884—John W. Mackay and James Gordon Bennett organized a cable system across the Atlantic from Valentia, Ireland, to Torbay, N. S., in the interests of the Commercial Cable Company of the New York *Herald*.

1884—The first long-distance telephone line in the world was constructed between New York and Boston.

1864—The first telegraph line in the United States was opened between Baltimore and Washington. The first dispatch was transmitted on May 27 from Washington to Baltimore.

1885—Connection between New York and Philadelphia was established.

1887—February 4, the "Interstate Commerce Act" was passed. The Interstate Commerce Commission is in general directed by the various statutes to aid the President in the liquidation of matters growing out of war-time control of the carriers; to establish and maintain just and reasonable transportation facilities, rates, classifications, regulations, and practices; to supervise the issuance of securities or the assumption of financial obligations by the carriers; to provide for the safety of employees, passengers, and property; and to function as a correlating agency between the competitive factors in the transportation industry.

1892—Connection between New York and Chicago was established.

1896—June 2, Marconi applied, in England, for a patent of his invention of wireless telegraphy.

1899—March 27, the first signals were sent across the English Channel.

1899—A common cable station was provided in the Azores by agreement, the parties being the Europe and Azores Telegraph Company, substantially British; the Commercial Cable Company, American; and a German company, the Deutsch-Atlantische Telegraphen Gesellschaft.

1901—December 12, the first wireless code signals were sent across the Atlantic Ocean from Poldhu to Newfoundland.

1902—December, the Pacific cable from Bamfield, Canada, to Australia was finished.

1903—Complete messages were sent across the Atlantic and the London *Times* contracted with the Marconi Telegraph Company for regular transmission of news from the New to the Old World.

1904—A regular wireless service from Poldhu and Cape Breton to liners in the Atlantic was begun.

1904—The British wireless telegraphy act provided that radio be controlled by the state, under the supervision of the Postmaster General, by whose authority licenses were to be granted, inspections made, and so forth.

1906—The first international radio convention was called at Berne, Switzerland.

1907—A regular wireless press service was opened and made use of in England by the London *Times* and in America by the New York *Times*.

1910—The British Post Office took over the Marconi coast stations in Great Britain and a scheme was entered into in the following March to establish a chain of wireless stations around the Empire.

1910—June 18, the Mann-Elkins Act was passed by which telegraph, telephone, and cable companies doing an interstate business were placed under the jurisdiction of the Interstate Commerce Commission.

1910—On June 24, President Taft signed the first bill

ever passed by Congress having any relation to radio communication.

This measure was directed solely to the safety of life at sea and its passage was due to the development of unrestricted use of wireless telegraphy and wireless telephony to the extent that it was interfering with the transmission of public and private messages, including calls from vessels in distress. It required all vessels leaving a port of the United States which carried fifty or more persons, including the crew, to be provided with radio apparatus capable of covering a service area of one hundred miles, and compelled masters of vessels to maintain a constant watch for distress signals.

1911—On July 1, a radio division was organized in the Department of Commerce to administer the provisions of the Radio Act of 1910.

1912—International Radio-Telegraph Convention was held at London.

1912—July, The British Government concluded an agreement with the Marconi Company for the erection of six high-power stations in various parts of the Empire. The war caused the Government to cancel the contract with the Marconi Company when several of the stations were almost completed.

On August 13, Congress passed what became known as "the Marine Act of 1912."

It was entitled "An act to regulate radio communications" and was the first general law covering the use of the radio in the United States. Some of the provisions of the Act of 1910 were repealed by this act.

1913—On November 12, the Safety at Sea Conference met in London, and included the consideration of radio problems in its program.

September 24, public wireless service between San Francisco and Honolulu was established.

1915—On July 24, wireless communication between the United States and Japan was effected.

On July 28, the American Telephone and Telegraph Company, working with the Western Electric Company, telephoned messages from Arlington, Va. (Washington), to Hawaii, a distance of 5,000 miles.

On October 26, wireless telephone conversations were held between the Arlington, Va. station and the Eiffel Tower Station, Paris, France.

1915—The first transcontinental telephone line was opened between New York and San Francisco.

1916—The All-America Cables won a court decision against the Western Telegraph Company (British), stripping it of most of its monopolies and gaining a foothold in Brazil.

1919—By the treaty of Versailles the German Atlantic cables passed to England and France.

1919—November, Norman Committee was appointed to prepare a scheme for imperial radio communication. Among other recommendations was the recommendation that stations be owned and operated by the state.

1920—The Presidential policy of "no monopoly" for cable companies came to a head when President Wilson refused a license to the Western Union Cable Company to lay a cable from Miami, Fla., to Barbados Island, where it connected with a cable of the Western Telegraph Company, a British firm. The President contended that the monopoly held by the British company precluded its connection with American lines because the American cable company would have to be party to the monopoly.

A number of experiments by Dr. Frank Conrad, of the Westinghouse Electrical and Manufacturing Company, resulted in experiment 1 broadcasting by that company

under a temporary experimental license for a station known as 8XX, the license for which was granted on October 22, 1920.

On November 2, the Westinghouse Company inaugurated its first general broadcasting from Station KDKA at East Pittsburgh when it broadcast the returns of the Harding-Cox Presidential election.

On the following night, November 3, KDKA began its regular evening program from 8.30 to 9.30 o'clock.

1921—May 2, the cable Landing Act was passed. It provided that no cable license should be granted to any company refusing equal privileges to the United States, and increasing the president's powers to grant licenses.

1921—By the act of June 10, Paragraph (9) was added to Section 407 of the Transportation Act, permitting telephone companies to make application to the commission for certification that the consolidation of their properties into a single system under the ownership of a consolidated company, to be subject to the Interstate Commerce Act, would be to the advantage of those persons to whom service was to be rendered and in the public interest.

On September 15, the Westinghouse Company was granted a broadcasting license for Station WBZ at Springfield, Mass., and on September 30 a license for another station at Newark N. J., Station WJZ.

On November 7, Station KDKA of the Westinghouse Company at East Pittsburgh was granted a regular broadcasting license.

These were the first broadcasting licenses granted by the United States Government.

1922—An alliance between the Commercial Cable Company and the All-America Cables, Inc., affecting 50,000 miles of cables, provided for an exchange of traffic between the two systems so that the two lines act as one in communication between North and South America.

1923—On March 20, the Second National Radio Conference met at Washington.

On December 31 Station KDKA, East Pittsburgh, Pa., transmitted a program to Great Britain on a short wave.

1924—In February KDKA resumed broadcasting programs to England, and on the 5th of the month one of its programs was relayed from London and heard clearly in Calcutta, India.

Between August 5 and September 24 KDKA maintained clear communication with the steamship *Arctic* while on its expedition to arctic regions. Messages were received at Cape Sabine, within 11 degrees of the North Pole.

1924—The Marconi Company announced the success attained with the so-called beam system of short-wave transmission, whereby the signals instead of radiating in all directions are confined to a more or less directional path or beam. A contract was signed by the company and the Postmaster General calling for the erection of beam stations in England capable of direct communication with the dominions and India.

1924—The Western Union laid the first permalloy cable to the Azores. By this cable a working speed of 380 words per minute was attained.

On October 6, the Third National Radio Conference met at Washington.

1925—During July American programs were broadcast to the American naval fleet in Australia.

The use of the telephone and radio for the transmission of photographs reached the practical stage.

Experiments in broadcasting programs from airplanes were successful.

(Continued on page 128)

Samuel F. B. Morse's Appearance Before the U. S. Senate in 1842

Eye Witness Describes Scene in Committee Room

by Hon. O. H. Smith,
U. S. Senator, Indiana, Whig, 1837-1843



It was in the year 1842, about 12 o'clock of the day, when I was notified in the Senate Chamber by the Sergeant-at-Arms, that Professor Morse wished to see the Senators in a committee room for the purpose of showing the operation of his magnetic telegraph. I repaired to the room at once, and found the Professor there alone. In a few minutes Senators Linn, Huntington, Merrick, Berrian, Woodbury, and Davis came in. He then proceeded to show us his invention and to point out the mode of operation. I watched his countenance closely, to see if he was not deranged, as that very morning I had been met in the rotunda by a middle-aged man with long hair hanging over his face and as we met he remarked: "Are you a member of Congress?" "I am." "Are you as big a fool as the rest?" "Perhaps so, and perhaps not." "Do you believe anything that you don't see?" "Yes, I have a good deal of faith." "I am the inventor of the flying fish, do you believe in that?" "I never supposed that there was any difficulty in flying; I thought the trouble was in lighting; can you light easy?"

No Confidence in Morse

"The question you ask is, whether I can overcome gravitation. I see you are just as big a fool as the rest of them," and he passed on. He was evidently deranged, and I looked upon Prof. Morse, and his wild talk about electricity, and the certainty of the success of his plan, in the same light, and I was assured by the other Senators after we left the room, that they had no confidence in it. There was not at that time a mile of stretched wire for telegraphic purposes in the United States. Soon after there was an operation very satisfactory between Capitol Hill and Bladensburg, some five miles, which was followed by an extension of the wire to Baltimore, with entire success. Such was the beginning of the system of telegraphs in the United States, that has extended over the length and breadth of the land, and will ultimately, by submerged wires connect Europe with America, Asia, Africa, and Oceania, annihilating time and space, overcoming all natural obstruction upon land and under the ocean, and our mighty rivers.

A Pen Picture of Morse

Professor Morse was above the medium height, well made, dark hair and eyes, large square forehead, prominent nose, wide mouth, projecting chin, hair thrown up on one side of his head, dressed plain, wore no hair on his face. His countenance indicated deep thought and long study. His mind during the time I was with him seemed to be entirely absorbed with the telegraph. I find in the *Western Democratic Review*, a notice of Professor Morse and the telegraph, from which I take some extracts that will be read with interest:

"Mr. Morse acquired a vast fund of knowledge in his European tour, having familiarized himself with the best models in the world; and he quit England in 1832 with every prospect of winning, in a few years, a splendid fame.

"Up to this period, according to the most reliable information in our possession, Mr. Morse seems not to have indulged even a remote idea of such an invention as that which has since enrolled him on the list of the first scientific men of all ages. His whole mind appears to have been occupied upon matters bearing no relation even to the subject of electricity, in any of its various modes. It is doubtless true that his reading had been so extensive, and his habits of thought so rigid and methodical, he could easily have transformed himself from a painter to a sage, but it is not in evidence that any such disposition as he afterward made of lightning was a part of his daily meditation.

Plan Evolved at Sea

"While on his way to the United States, in 1832, upon the packet-ship Sully, a gentleman referring to the experiments which had just been made in Paris with the electro-magnet, a discussion arose in regard to the time occupied by the electric fluid in passing through a wire of a hundred feet in length. Upon the intimation that the passage is instantaneous—recollecting the experiments of Franklin—Mr. Morse suggested that the electricity could be carried to any distance, and be made a means of conveying and recording intelligence. The idea took deep hold of his mind, and before the end of the voyage he had draughted and written a plan of the greatest invention of the age.

The first electric telegraph completed in the United States was erected between Baltimore and Washington, in 1844, and the first public message transmitted was the announcement of the nomination by the Baltimore Convention, of James K. Polk, as the Democratic candidate for the Presidency. More than twenty thousand miles of telegraph have since been erected in this country, and but few years will pass until all parts of our vast domain will be bound together by iron wires.

Morse Wanted to Return to Painting

"Professor Morse still indulges the idea of returning to his old profession—painting; so much of his time, however, will necessarily be devoted to the business to which he has given so much attention for twenty years, an opportunity will probably never arise for him to gratify his ardent wish to become once more associated with the beautiful and classic models of Italy and the Louvre. We only do him justice when we assert that he is one of the most intellectual and refined characters of the age."—*Extracts, see 1, p. 128.*

The Federal Radio Commission

A Survey of its Functions

by G. F. Wisner,
Director of Publicity, Federal Radio Commission



THE Federal Radio Commission was created by an act of Congress, approved February 23, 1927, to deal with a condition in the radio broadcasting field which had become hopelessly involved during the months following July 3, 1926, when it became clear that the Department of Commerce had no authority under the 1912 Radio Law to allocate frequencies, withhold radio licenses, or regulate power or hours of transmission.

When Government control of radio stations broke down there were 528 stations broadcasting with little interference. New stations sprang up like mushrooms, so that by July 1, 1927, the number had increased to 671. Many stations jumped their waves and increased their power regardless of the rights of other broadcasters; even channels set aside under a gentleman's agreement "for the exclusive use of Canadian broadcasters" were appropriated by American broadcasters.

President Coolidge's Recommendations

In his message to Congress, December 7, 1926, President Coolidge recommended radio legislation, saying: "Due to the decisions of the courts, the authority of the Department under the Law of 1912 has broken down; many more stations have been operating than can be accommodated within the limited number of wave lengths available; further stations are in course of construction; many stations have departed from the scheme of allocation set down by the Department, and the whole service of this most important public function has drifted into such chaos as seems likely, if not remedied, to destroy its great value. I most urgently recommend that this legislation should be speedily enacted."

The Radio Act of 1927

Disturbances in the air by the broadcasters became so pronounced that the public became indignant and members of Congress were bombarded by protests requesting legislation to bring about relief. The Radio Act of February 23, 1927, creating the Federal Radio Commission, was the answer of Congress to the protests of listeners about the chaotic condition in the air and was designed to bring order out of chaos.

The Radio Act of 1927 provided for an independent commission of five members, to be known as the Federal Radio Commission, to have absolute control of broadcasting and other radio activities for one year. Then the licensing authority was to revert to the Secretary of Commerce and the Federal Radio Commission was to act as a sort of Court of Appeals to hear protests of broadcasters who might take exceptions from the rulings of the Secretary of Commerce. (On March 28, 1928, Congress extended the life of the Commission one year, with full powers as a licensing authority.)

Under the Radio Act of 1927 the Federal Radio Commission was formally organized on March 15, 1927.

The problem confronting the new commission was to bring order out of chaos by placing the 732 broadcasting stations operating when it was organized on the 89 wave lengths available, so as not to create serious interference.

To provide good radio broadcasting service for the people of the United States was only one of the many responsibilities placed on the Federal Radio Commission by the Radio Act.

The Commission's Broad Jurisdiction

Besides making strenuous efforts to take care of all broadcasting stations which are rendering a distinct public service on the 89 available ether channels, the commission has devoted much thought and study to many other uses of radio, placed under its jurisdiction. These uses include many point-to-point stations, transoceanic and transcontinental, 2,000 ship stations, 16,000 amateur operators, some 200 experimental stations and 100 or so technical and trade school stations. Communication by radio with airplane is another growing field for which adequate provision must be made. Safety to life at sea, radio beacons, radio compasses, etc., are other appliances of the greatest importance which the commission has under its control.

The Broadcasting Problem

While the 1927 Radio Act embraces the whole field of radio communication, public interest was centered largely on a single section of it devoted to radio broadcasting. For this reason the work of the Federal Radio Commission for a long time was devoted almost exclusively to clearing up the broadcasting situation. With the physical capacity of the available channels of wave lengths already far exceeded by the number of stations actually in operation and with no provision in the law for the Federal acquisition or condemnation of broadcasting stations in order to reduce the total number, the commission found it necessary to evolve some plan whereby without any unconstitutional exercise of arbitrary authority, the listening public could receive more dependable broadcasting service and whereby a gradual and orderly development could be counted on to bring about a progressive reduction in radio interference.

Important Rulings

Among the outstanding rules and regulations adopted by the commission were orders providing for a separation of 10 kilocycles in frequency between all rural stations and 50 kilocycles between stations in residential sections. Broadcasters were ordered not to deviate more than one-half kilocycle from their assigned frequency.

Then the commission ordered all the American broadcasters off the waves assigned to Canada. Radio reception conditions showed gradual improvement throughout the country as the orders of the commission became effective, but with the winter season coming on it was deemed advisable in the autumn of 1927 to clear some channels for distant reception. Accordingly, on November 14, the commission announced a comprehensive plan to set aside the broadcasting channels from 600 to 1,000 kilocycles as a band to be maintained free of heterodyne, whistles and other radio interference.

The initial step in that plan called for the transfer, effective December 1, 1927, of about 25 stations within the present restricted channels which it believed had been causing most of the heterodyning.

Application of the Davis Amendment

During July and August, 1928, the Commission, with the assistance of its Engineering Division, worked out a new allocation of broadcasting stations to conform with the Davis Amendment of the Radio Act which provides for an equal distribution, as far as possible, of radio facilities among the zones and equitable service within the states. Four members of the Commission approved the new plan. Commissioner Robinson voted against it, adhering to his belief that the Davis Amendment was not intended to require a reallocation of the entire broadcasting spectrum to be made at one time. He opposed the plan also because it included what, in his opinion, were excessive power assignments to certain stations.

The first step towards putting the new allocation into effect was the issuance of General Order 40 on August 30th, 1928. It represented a combination of the plans which had been suggested to the Commission from time to time, together with certain concessions which had to be made to the practical necessity of the situation because of the existing number and character of the broadcasting stations.

Service to Rural Communities

Forty channels were set apart for stations of sufficient power on cleared channels to give good service to rural and remote listeners. These channels were allocated equally, eight to each zone. This type of service corresponds to the type which was called "national" in the plans submitted to the Commission by expert engineers in April. Thirty-five channels were set aside for stations of power not to exceed 1,000 watts, to be allocated equally among the zones, each channel to be used—with certain exceptions—by not less than two or more than three stations. Six channels were set aside for use in all five zones by stations of 100 watts or more; five channels were set aside for use in all five zones by stations having not to exceed 1,000 watts; four channels were set aside for use by stations of 5 kilowatts in two or more zones.

Working Out Broadcasting Regulations

The principal efforts of the Commission during the past year have been in the fields of eliminating erroneous or impracticable features of the general broadcast allocation, designating frequencies for general communication purposes, and providing a proper regulatory basis for the rapid development of the radio art. In these efforts basic policies have been outlined as clearly as the state of radio technique has permitted and future developments may be expected upon a sound regulatory background.

Efforts have been made, by rules and regulations, to codify the regulatory features for all types of radio stations in order to obtain the widest and most useful public service.

Radio's Rapid Growth

During the year the Commissioners personally reviewed and passed upon 6,927 applications. Two hundred and twenty-nine hearings were held before final action on these applications.

The surprising manner of the growth of radio communication during its progress from experimental to established uses has required constant study and research by the Commission in order that its decisions may conform to sound principles of law, physical science, and economics.

The Commission, on May 20, 1929, decided that licenses for experimental stations, including relay broadcasting, visual broadcasting, and experimental aircraft, will be issued for periods of one year instead of three months as heretofore.

Experimental stations can be used only for experimental purposes. They are not licensed to conduct message traffic of any kind.

A suitable, economical, and comprehensive plan for the radio requirements of aviation has been adopted. To coordinate the use of radio facilities as an aid to aviation and to secure a maximum of flexibility, certain frequencies were set aside solely for aviation.

The Commission has adopted a policy of issuing licenses (as far as practicable) for point-to-point stations, for general communication purposes, only to individuals or corporations which have assumed a public utility obligation as common carriers.

The Problem of Television

Television, even in its present experimental stage, requires frequency bands at least 100 kilocycles in width. Some scientists estimate that a band in excess of 1,000 kilocycles in width may be necessary to give satisfactory detail in a moving picture transmitted by radio. Very serious problems will soon confront the Commission if frequency bands are to be made available for regular television service.

While optimistic as to the future of television engineers believe it will be some time yet before the art is perfected to a point where it will afford entertainment and instruction to the general public, as many serious problems are to be solved.

Considering the Radio Public

Much attention is given by the commission to the legal aspects of radio regulation. Many important steps taken by the commission are being challenged in the courts. Litigation has, however, had the effect of settling some of the Commission's problems.

While radio broadcasting has made progress, much remains to be desired. Many programs are still of doubtful value. Offensive sales talks are too common. The attitude of the listening public will tend ultimately to cause the correction of such defects.

The radio act specifies that the Commission shall exercise no censorship over programs. Nevertheless, the kind of service rendered by a station must be a means of appraising its relative standing and must be considered by the Commission in making assignments.

The Department of Commerce Radio Service

by W. D. Terrell,
Chief, Radio Division, Department of Commerce



THE Radio Service of the Department of Commerce was organized on July 1, 1911, to enforce the radio law applying to ships. This law provides that it is unlawful for any steamship, foreign or American, carrying fifty or more persons and running two hundred miles or more between ports, to leave, or attempt to leave, a port of the United States without having a radio installation in good working order capable of working one hundred miles day or night and an emergency source of power which may be substituted for the ship's source of power if necessary.

The law also provides that the installation shall be in charge of two or more radio operators in order that a continuous watch may be maintained while the vessel is being navigated. This service is maintained to give protection to lives and property and it has been instrumental in saving many lives and many vessels.

One outstanding case is that of the S. S. Titanic which met with disaster on April 15, 1912. Seven hundred and three lives were saved through assistance secured by wireless. A large number of persons lost their lives before the rescue ship could reach the vessel, but undoubtedly these 703 persons would have gone to the bottom of the ocean had it not been for the use of wireless.

Inspection of Ships' Radios

The radio inspectors of the Department of Commerce, Radio Division, are directed to give first consideration to the important duty of inspecting the radio installations on ships before the vessels sail. For this purpose inspectors are located at the principal seaports—Boston, New York, Philadelphia, Baltimore, Norfolk, New Orleans, San Francisco, Seattle, Detroit and Chicago.

During the fiscal year 1929, 10,715 inspections were made of vessels coming under the law and 2520 inspections were made of vessels voluntarily equipped with radio, making a total of 13,235 inspections of ship installations during that fiscal year.

Licensing Radio Operators

In addition to the inspection of radio equipment to insure its efficiency the radio operators assigned to commercial vessels are given a strict examination to determine their fitness for this important work. If they pass the examination they are issued appropriate licenses.

There is a monument erected at the Battery in New York to the memory of radio operators who have gone down with their ships. Each year new names are carved on this monument.

International Radio Regulation

In 1912 the Act to Regulate Radio Communication was passed by Congress and became law, also the International

Radiotelegraph Convention was amended at London. Briefly, the purpose of this law and international treaty was to insure uniformity of practice and prevent interference. Under this law all radio stations were licensed, wave lengths assigned, call letters assigned, power and hours of operation specified. Both the radio law and International treaty provided that the wave length of 600 meters, 500 kilocycles, was to be used by all vessels for signals of distress. At that time radio was used almost exclusively for ship-to-ship and ship-to-shore communication. Transoceanic service was considered in the experimental stage. Radio broadcasting was unthought of. Point-to-point communication over land was also in the experimental stage. A number of amateur stations were operating with little or no regulation.

Rapid Growth of the Radio

In 1912 this country had 483 merchant ships equipped with radio. In 1929 there were 2,213. We had one transoceanic station operating more or less irregularly. In 1929 we had 26 such stations communicating with the principal countries of the world. As I said before, we had no broadcasting stations, while in 1929 we had 614. We had 1,224 amateur stations, while in 1929 we had 16,829.

Until broadcasting started in 1921 there was no great pressure for the use of wave lengths. The ships were able to handle their traffic on a few channels. The transoceanic service was carried on on the very long wave lengths and the amateurs were permitted to use 200 meters and below. Since 1912 the development of broadcasting necessitated the assignment to this service of the wave lengths from 200 meters to 545 meters. The amateurs were given several bands of wave lengths below 200 meters and the commercial interests found that the wave lengths below 200 meters were particularly well adapted for long-range communication with reduced power. Now there is a great demand for wave lengths and opportunity to communicate internationally and nationally by both radiotelephone and radiotelegraph.

Strict Supervision of Stations

This constantly growing interest in radio communication extends throughout the world and it is necessary to strictly supervise the operation of all stations to prevent interference nationally and internationally between the commercial services, private services and government services. It is not unusual for the radio inspectors of the Department of Commerce who have put in their full day's work at the office or in inspection work to remain on duty until midnight or later checking the wave lengths, or frequency of operating stations to determine if there is any interference, which stations are violating the law or the provisions of their license.

Policing the Ether Highways

In the early days it was necessary to inspect ship stations and stations working with ships only. Now it is necessary to inspect all stations and to carefully observe their operation. These ever-increasing duties have taxed the inventor and the manufacturer to provide accurate measuring instruments for the use of our service. Few people realize the difficulty of policing the ether highways and endeavoring to prevent conflict between these invisible carriers of messages relating to distress, commerce, entertainment, education, farm reports, stock reports, weather forecasts, time signals, government communications, pictures, fac-simile messages and the many other messages of various character which are passing through the ether hourly not only originating in this country but many of them originating in other countries and often passing through this country.

It is not unusual for the amateur with his homemade set using power of perhaps 100 watts or less to transmit a message which is picked up in Europe, Australia or New Zealand. The slightest disarrangement in transmitting apparatus may cause this message to interfere with some other service.

Monitoring the Radio Stations

The Radio Division has established a system of monitoring radio stations, the principal purpose of which is to check or measure the emitted wave of transmitting radio stations, thereby determining if such stations are operating on the frequencies specified in their station licenses. Deviation from their assigned frequencies may result in interference with stations on adjoining channels or frequencies. New apparatus to be used in connection with this service is now being installed at Boston, Baltimore, New Orleans, Los Angeles, San Francisco, Portland, Chicago, Detroit and Grand Island, Nebraska. In addition to the equipment to be installed at these of-

fices six radio test cars are to be installed with equipment to be used for the same purpose. These cars are assigned to Baltimore, Atlanta, New Orleans, San Francisco, Detroit and Chicago.

Standardization of Equipment

When this equipment is in use it will be possible to make measurements of practically all stations in the United States any many stations in other countries. While work of this kind has been carried on for a year or two at most of these offices it is only recently that standardization of the equipment has been accomplished and it is anticipated that with the new equipment the measurements will be more accurate and the results of the work more satisfactory.

Portable Radio Inspection Offices

The inspection service is now equipped with six radio test cars and we will have two more before the end of this calendar year. These cars are portable radio inspection offices equipped with apparatus which enables the inspector to measure the strength of signals from a radio station and determine the power the station is using, to check the wave length or frequency of stations, to monitor the programs and facilities for giving examinations to radio operators. These cars are proving a great convenience in enabling the inspector to travel around the country without having to rely on infrequent train service in any place and accomplishing much more work and doing it much more efficiently than can be accomplished by using trains. It would be impossible to transport this apparatus by train and use it efficiently. The radio inspection service of the Department of Commerce is performing all of the field work required by the Federal Radio Commission which is given certain administrative authority under the Radio Communications Law of 1927. This field work is directed through the Radio Division of the Department of Commerce.

The Interstate Commerce Commission and the Telegraph and Telephone Systems

by Hon. Joseph B. Eastman,
Commissioner, Interstate Commerce Commission



THE Interstate Commerce Commission has no departments, bureaus, or divisions which deal exclusively with radio, telephone, telegraph or cable matters. The annual and monthly reports filed by such companies are received and supervised by the Bureau of Statistics. Annual reports are received from 341 telephone companies and 16 telegraph and cable companies. Monthly reports are received from 98 telephone companies and 13 telegraph and cable companies. Selected financial data are compiled by the Bureau from the annual reports of the telephone companies and published in mimeograph form. Questions relating to the accounting of the specified companies are handled by the bureau of accounts, which prepared the uniform accounting classifications for telephone and for telegraph and cable companies which have been prescribed by the Commission. An accounting classification for radio companies engaged in the transmission of messages by wireless is in course of preparation. The bureau of valuation is charged

with the duty of making the investigations and collecting the data necessary in connection with any valuations of the properties of the specified companies which are made.

Formal and Informal Complaints

Any formal complaints in regard to the rates of practices of such companies are handled administratively by the bureau of formal complaints, unless they are of sufficient importance to be placed in charge of a commissioner. Any informal complaints or queries relating to the specified companies are ordinarily handled by the bureau of informal complaints. Any tariffs or contracts which are filed by these companies with the Commission are in the custody of the section of tariffs of the bureau of traffic, and that bureau aids in answering informal complaints and queries in regard to their rates and practices. Applications with respect to the consolidation of telephone companies, or their unification in other ways, are handled

administratively by the convenience and necessity section of the bureau of finance. If any order of the Commission relating to the specified companies were attacked in court, the bureau of law would have charge of the defense, and that bureau may be called upon to furnish to the commission memoranda of law relating to such companies. Any prosecution of such companies in court for violation of any law administered by the Commission would be in charge of the bureau of inquiry. Sections of our bureau of administration, such as the section of dockets, the section of mails and files, and the section of stenography, may occasionally have clerical work involving such companies.

Telephone Company Reports

The American Telephone & Telegraph Co., the parent company of the Bell Telephone system, for account of itself and its subsidiaries, files: (1) Trans-Atlantic telephone rates, (2) long distance station-to-station rates covering telephonic communications between frequently called points in the United States; and (3) other tariffs which purport to provide the bases for computing telephone rates between other points in the country. It is not known whether these tariffs are complete, nor are those mentioned in subdivision (3)—that is, those which purport to provide the bases for computing telephone rates between other points in the country—in such form that rates may readily be determined therefrom.

No schedules covering rates charged by telephone companies to broadcasting companies or radio stations are filed with the commission.

No schedules covering charges made by telephone companies to broadcasting companies for wire connections, such as from studios to transmitters, are filed with the commission.

The Cable Company Cases

The principal cable companies, including the Western Union Telegraph Co. and the Postal Telegraph-Cable Co., file their cable rates with the Commission. The Commission has dealt with cable rates in only two instances. The first is recorded in *White v. Western Union Telegraph Co.* (33 I. C. C. 500), decided in 1915. It was found that the defendant's standard rates for the transmission by cable of messages from New York to points in England were not shown to be unreasonable or unjustly discriminatory.

It should be pointed out that in 1920 the interstate commerce act was specifically amended so as to make it applicable, in connection with the transmission of intelligence by wire or wireless to, from, or through a foreign country, only in so far as such transmission takes place within the United States.

Commercial Cable Co., v. Western Union

The second case was recorded in *Commercial Cable Co. v. Western Union Telegraph Co.* (45 I. C. C. 33), decided in 1917. It was found that the rates attacked for the transmission of deferred messages were not shown to be unreasonable, but that the defendant's refusal to transmit from New York to points in the United States deferred cable messages originating in South America upon the same terms as like messages were transmitted upon like conditions for a competitor of complainant subjected the latter to unjust discrimination, which was ordered to be removed. It was further found that defendant's land lines and cable lines constitute a single system, and that an allegation of unjust discrimination could not properly be predicated on the fact that the rates which defendant charged complainant for forwarding European messages from New York exceeded the sums which defendant, as a matter of bookkeeping, credited to itself for performing similar service for its own cable lines.

Power Over Cable Services

Whether the Commission has power over the whole range of cable service has been a highly controverted question so far as railroad rates are concerned, where the provision is the same, and we have had decisions upon that point which have gone up to the Supreme Court as to just what our power is over international rates. I can not say that the matter is completely determined yet, but the commission has exercised jurisdiction over such rates to the extent that it has awarded reparation for a tort committed by a United States carrier in joining in an unreasonable international rate. It has held that it has no power over the establishment of such a rate for the future. But we have power to see to it that the charge for the service performed, so far as it takes place within the United States is reasonable. We could compel the service to be divided, for example, and fix a rate for the part which takes place solely within the United States.—*Extracts, see 2, p. 128.*

The President's Control of Cables

by Hon. William R. Castle, Jr.,
Assistant Secretary of State, State Department

Licenses to land and operate submarine cables in the United States are now granted by the President, pursuant to the authority conferred upon him by the act approved May 27, 1921, at which time a number of cable companies possessed exclusive rights in some foreign countries by reason of which American cable companies were unable to obtain permission to land their cables in those countries.

The President is authorized to withhold or revoke licenses when he is satisfied, after due notice and hearing, that such action will assist in securing rights for the landing or operation of cables in foreign countries, or in maintaining the rights or interests of the United States, or of its citizens in foreign countries.

In administering the act of 1921, the practice was adopted of incorporating in licenses conditions forbidding the applicant for a license to possess exclusive rights in foreign countries by reason of which American cable companies were denied the privileges of entry into the foreign country concerned.

A number of monopolistic concessions possessed by cable companies in foreign countries were canceled as a result of this practice of the Government in forbidding applicants for licenses to possess exclusive rights of landing or operating in foreign countries or to associate with other cable companies possessing such rights.—*Extracts, see 2, p. 128.*

The Control of International Cable and Radio Communications

by G. Stanley Shoup,

Chief Communications Section, Transportation Division, Department of Commerce



ACCORDING to figures compiled from the List of Submarine Cables of the World, twelfth edition, December, 1928, published by the International Bureau of the Telegraph Union at Berne, the total mileage of the world's cables is 361,631.4 nautical miles. Of this amount, 55,764.5 nautical miles are operated by government administrations, 5,473.6 miles consist of German cables not yet apportioned, and 300,393.3 miles are operated by private companies. Now, of this mileage for private companies, 168,193.4 miles belong to British companies, 93,203.1 miles belong to American companies (of which about 17,482 miles are owned by British companies but operated by American companies), 18,414.4 miles to French companies, 9,937.3 to Italian companies, 8,416.4 to Danish companies and 2,144.7 miles to German companies.

England's Early Cable Control

The many attempts to span the Atlantic, and the zeal with which other cables were laid following the final success saw a highly specialized cable industry in England. Great Britain was quick to realize the importance of the new method of communication and was willing to furnish the necessary funds. On the other hand, it was exceedingly difficult to raise money in this country, where capital was needed for domestic enterprises and the vast majority of the people were unwilling to invest in an enterprise entailing so great an amount of risk as that involved in submarine telegraphy. It also is worthy of note that many of the early British cable schemes were promoted by firms engaged in the manufacture of cables.

The British wireless telegraphy act of 1904 provides that radio be controlled by the State, under the supervision of the Postmaster General, by whose authority licenses are granted, inspections are made and so forth. As early as 1910 the British discussed plans for linking the Empire by wireless.

The Marconi Agreement

In July, 1912, the Government concluded an agreement with the Marconi Co. for the erection of six high-power stations, but a revised agreement was concluded in July, 1913. It provided for the erection of six high-power stations in various parts of the Empire, namely, England, Egypt, East Africa, India, Singapore, and South Africa. The war caused the Government to cancel the contract with the Marconi Co., at which time the masts of the English and Egyptian stations were virtually completed and material had been delivered for the Egyptian station, and it was not until toward the end of 1919 that work on the stations in England and Egypt was resumed.

England and the Far East

The Marconi Co. had been advocating direct communi-

cation from England to India, Australia, and South Africa, but the Norman committee, which was appointed in November, 1919, to prepare a scheme for imperial radio communication, rejected the proposal for direct communication and recommended the establishment of relay stations about 2,000 miles apart for communication with Egypt, India, the Far East and Australia on one hand, and with East and South Africa on the other, and further recommended that the stations be owned and operated by the State.

As a result of agitation in the Dominions, the British Government reconsidered the matter and in July, 1922, announced the acceptance of the Marconi proposals for direct communication.

Private Capital in British Communication

The policy of radio being operated by the State was deviated from in 1923, when it was decided to permit private capital to enter the field of imperial communications and to allow competition in the service.

It was hoped that by allowing private capital to participate in the enterprise the completion of the proposed chain would be expedited, but the Marconi Co. and the Postmaster General could not reach a satisfactory agreement, and negotiations were deadlocked. In the hope of expediting matters the Government once more appointed a committee under the chairmanship of Sir Robert Donald, to investigate the question of imperial radio communication. It was the sixth committee appointed within the past 12 years to consider this subject. Its principal recommendations, made known in February, 1924, were to the effect that the state should own and operate all empire stations in Great Britain for communication with the Colonies, Dominions, and so forth, except in the case of Canada; that private enterprise be permitted to develop radio facilities for communication with foreign countries, and that certain existing stations be either modernized or removed from the empire system.

The Beam System

In April, 1924, the Government announced that it planned to adopt the main proposals of the Donald report. The subsequent announcement, however, by the Marconi Co. of the success attained with the so-called beam system of short-wave transmission, whereby the signals instead of radiating in all directions are confined to a more or less directional path or beam, caused the Government to apparently forget its differences with the Marconi Co., and in July, 1924, a contract was signed by the company and the Postmaster General calling for the erection of beam stations in England capable of direct communication with the dominions and India, which in the meantime had negotiated contracts with Marconi subsidiaries.

The Beam System and the British Merger

It was the beam system which revolutionized the art of long distance radio communication, played havoc with the traffic of the British cable companies, and virtually forced the much discussed merger of British cable and radio companies. The British Government was quick to realize the potentialities of the new system, with its economy of construction and operation, high speed, and greater range and a degree of secrecy heretofore impossible in radio communication.

That system works at a greater speed than the low-frequency circuits. Before that I believe that had a speed of, say, around 50 or 60 or 75 words a minute. With the beam system it is close to 150 or 200 words a minute now I believe.

The R. C. A. Projection System

The Radio Corporation of America have perfected what they call the R. C. A. projector system, I believe it is, which in some respects they claim to be superior to the British beam system. The towers for the British system are steel masts, with four or five for each service; the R. C. A. has an antenna system and it is rigged on ordinary telegraph poles. Of course there is considerable saving there. And I believe there are certain technical considerations also that they claim make their system superior to the British beam system.

The beam system was operated in competition with privately owned British cable companies, not only that, but it also competed with state-owned cable companies.

The first circuit to be opened was the Canadian, which passed its official test in November, 1926; and in March, May, and August of 1927, the Australian, South African, and Indian stations passed their official tests. The circuit between Canada and Australia was opened in June, 1928.

Radio and Cable Competition

Prior to the advent of the beam system Great Britain was largely dependent upon cables for Empire communications, and it was the success attained with the beam system which was partly responsible for the merger of British cable and radio companies. The beam radio stations in England were operated by the post office at cheaper rates than cables and were not only seriously competing with the private British cable companies, but with the state-owned cables in the Pacific and the Atlantic, a situation, which one British journal characterized as "State enterprise run mad."

The Fall of Cable Stocks

As a result of this competition, cable stocks depreciated and the revenues of the cable companies declined. The financial position of the British cable companies was sufficient to undercut any rates the radio services might establish, but they realized the harmful effects of a rate war, and rather than precipitate it they preferred to go into voluntary liquidation. This brought on the possibility of the British cable system, or certain units thereof, passing into the hands of foreign interests.

The Imperial Wireless and Cable Conference

The situation became acute, and an Imperial Wireless and Cable Conference, under the chairmanship of Sir John Gilmour, composed of representatives for Great

Britain, Canada, Australia, New Zealand, South Africa, Irish Free State, India, and a representative for the colonies and protectorates, accordingly convened in London on January 1, 1928, the purpose of which was "To examine the situation which had arisen as a result of the competition of the beam wireless with the cable services, to report thereon, and to make recommendations with a view to a common policy being adopted by the various governments concerned."

On March 15, 1928, the Eastern and Associated cable companies and the Marconi company jointly announced a provisional merger.

The British Merger

The report recommended that from the merger company there be formed a communications company with a capital not to exceed 30,000,000 pounds at inception, the sole function of which would be the operation of communication services. This company to acquire the two imperial cables across the Atlantic, operated by the post office at a deficit which for the past four years had averaged 37,627 pounds (about \$173,000) annually, and as a result of beam competition during the past year, the operating revenue did not even cover depreciation; the cables of the Pacific Cable Board connecting Canada with New Zealand and Australia, a route which when linked with the two Atlantic cables mentioned above, provides an all-British system, no part of which passes through foreign territory; the West Indian cable and wireless system, operated by the Pacific Cable Board; and the lease for 25 years of the profitable beam radio circuits of the post office, at an annual rental of 250,000 pounds plus additional monetary consideration.

British Control Guaranteed

It is agreed that British control must be guaranteed; that the government may assume control of the cable and wireless systems during national emergencies; and that the army and navy are entitled to construct and operate cable and wireless stations for their own needs, but not for commercial purposes. The British post office may reserve the right to operate the external telephone services from Great Britain, but must agree with the communications company upon terms for utilizing company radio stations for telephone transmission and reception.

Causes of the British Merger

I believe that the British merger was a result partly of competition; that is true, but there was another reason, which was political. We have made rapid strides in this country in international communication, and the British feared the lead which the United States was taking, and unquestionably one of the main factors in determining a merger of British cables and radio was aimed directly at the United States. As a matter of fact, I think that is more or less apparent from the report of the committee.

Increasing use of the telephone has resulted in telegraph traffic declining in some countries.

Losses in English Telegraph Companies

The telegraph service in Great Britain was taken over by the State in 1870, at a cost of about 8,000,000 pounds. It has not been operated at a profit since about 1883.

The average annual deficit since 1922 has been in excess of 1,225,000 pounds, or over \$6,000,000. This feature is also noticeable in other countries. Telegraphic

traffic and revenue also is declining in Germany and Switzerland. In Switzerland, telegraph traffic continued to decrease in 1928, while telephone increased by 11 per cent. Irish Free State telegraph losses for the year ending March 31, 1928, amounted to 142,212 pounds. Telegraph messages in Estonia numbered 351,000 in 1927, and in 1928 declined to 346,000.

In this country it is in fact on an increase. Our business turnover in this country is so tremendous in comparison with some other countries, that it is a very different situation.

International Radio-Telephone Services

We find considerable activity in connection with the establishment of international radiotelephone services. Experiments in trans-Atlantic telephony began in June, 1915.

Commercial service was inaugurated between the United States and Great Britain on January 7, 1927, the American end being operated by the American Telephone & Telegraph Co. and the British end by the post office. The voice of the American subscriber is carried by ordinary telephone circuit to the long distance headquarters in New York, from which point it continues by wire to the transmitting station at Rocky Point, Long Island. Here the signals are greatly amplified for radio transmission across the Atlantic to the receiving station at Cupar in northern Scotland, a distance of 3,200 miles. The voice then passes over telephone wire to London, a distance of 450 miles from which point it is relayed by wire to its destination in England or the continent. It goes over the government wire into the British post office and is telephoned from there.

The British transmission station is located by Rugby, the high-power radio station operated by the British post office, and situated about 85 miles from London. The voice is carried by ordinary telephone wire from London or other continental points to Rugby, from where it is transmitted by radio to the American receiving station at Houlton, Me., a distance of about 2,900 miles. The Houlton station is connected by wire with the operating center in New York a distance of about 600 miles.

The Submarine Telephone

Over 2,300 connections were made during the first year of operation, but a reduction in rates in March, 1928, has resulted in a large increase. There has since been established a high-frequency circuit, and I understand that several additional circuits are now contemplated to handle the increasing traffic. Engineers of the A. T. & T. claim to have perfected a submarine telephone cable suitable for establishing connections between the United States and Europe which will result in a more reliable service. There are four international radio telephone systems in operation.

I might say that in the way of cables Germany I believe is planning the laying of a new cable between Emden and the Azores. The cable traffic between Germany and North America has increased quite a lot during the past few years, averaging I should say around 3,000,000 or 4,000,000 words a year.

America's Communications Needs

We know that our American trade is increasing and that we need an adequate system of international communications. I think that the question is not so much a weighing of the advantages and disadvantages of monop-

oly, as it is whether two or three American companies can compete with the British merger. I think that in the last analysis it comes down to that.

If radio and cables are merged there is of course the danger of radio being made subservient to the cables. That is, I mean its full development might be retarded, or there is that possibility at least.

The consensus of opinion seems to be that radio will never supplant the cables.

The conception of the modern system of communications seems to be a radio and cable network, so coordinated that if transmission defects appear in the one method you can go over to the other.

American Cable Companies Expand

There is every evidence that American cable companies will expand their systems. New cables will be laid, and as older ones become obsolete they will be replaced by cables of the most improved type, assuming such replacements to be justified. In 1924, the Western Union laid the first permalloy cable to the Azores, providing direct service to Italy and Germany, as well as giving American cable users a far better outlet to Spain and South Africa. A new permalloy cable was laid between the United States and Great Britain in 1926, and recently the Western Union completed the laying of 1,341 nautical miles of the most improved type of cable between Newfoundland and the Azores, at a cost of approximately \$1,800,000. From the foregoing it is apparent that cables have not become passe; in fact it is said that radio will not entirely supplant the submarine cable.

The Mackay-International Merger

America partially met the British fusion of radio and cable interests when in March, 1928, the country was startled by the announcement that the International System had merged with the Mackay interests, which includes ownership or operation of over 36,000 miles of cables connecting principally the United States with Europe and the Far East; the Postal Telegraph system serving the United States; and the Mackay Radio and Telegraph Company which owns and operates a radio-telegraph service on the West Coast and intends to establish international radio communication with Europe and the Far East.

Efficient American Telephone Systems


The United States has the most efficient and highly developed telephone system of any nation in the world, due in large measure to the benefits derived from unified and intelligent administration. In pondering this fact, it might be well to pause for a moment and reflect what this telephone service would be were it to consist of countless independent companies, each serving relatively small areas, with little or no coordination between them. In fact, the history of communications in the United States is filled with instances of small and poorly organized companies which, for various reasons were unable to survive, and either expired or were acquired by others.

Sentiment in the United States has always held that there must be competition, a policy that was affirmed in the Radio Act of 1927. Many now question whether this element of competition should remain and be made applicable to our system of international communications, especially in the light of present day developments in other countries.

Proposed Federal Communications Commission

President Hoover's Views

From His Annual Message to Congress, December 4, 1929


 RECOMMEND the reorganization of the Radio Commission into a permanent body from its present temporary status. The requirement of the present law that the Commissioners shall be appointed from specified zones should be abolished and a general provision made for their equitable selection from different parts of the country. Despite the effort of the Commissioners, the present

method develops a public insistence that the Commissioners are especially charged with supervision of radio affairs in the zone from which each is appointed. As a result there is danger that the system will degenerate from a national system into five regional agencies with varying practices, varying policies, competitive tendencies, and consequent failure to attain its utmost capacity for service to the people as a whole.

Pros and Cons on the Couzens Bill

By WILLIAM C. GREEN,

Special Counsel, Senate Committee on Interstate Commerce Committee for Investigation of Communications

 N the consideration of the proposed legislation for the creation of a Federal Communications Commission the Senate Committee on Interstate Commerce has discovered sharply divided opinion on several points. During the course of the hearings before the Committee on Senate Bill No. 6, introduced by Senator James Couzens, Chairman of the Committee, the heads of all the communications companies—telegraph, telephone, cable and radio—have appeared and given freely their views. In addition to these experts the Committee has had the benefit of Federal and State Government officials and many others qualified by practical experience to discuss intelligently the problems involved.

An analysis of the statements made to the Committee by the witnesses shows differences of opinion on the following phases of the general question of communications:

A National Communications Commission

While a large majority of those who have expressed themselves are either strongly in favor of a single Governmental agency for the control of all wire and wireless communications, as provided for by the Couzens bill, or are willing to acquiesce in this plan, others think that radio broadcasting is a problem in itself and should be controlled by one body, while radio communications should be under the control of whatever agency control the telegraph, telephone and other communications systems.

The telegraph and telephone companies seem well satisfied to have the control of their systems remain in the Interstate Commerce Commission, although they are not vigorously opposing the proposed change.

The Zone System

The Davis Amendment to the Radio Act of 1927 provides that each of the radio zones shall have equal broadcasting facilities and the original act provides that in the membership of the Federal Radio Commission each zone shall be represented.

This general question of zone representation has been

the subject of controversy since radio legislation began and opinion is still sharply divided. Those representing the heavily populated zones maintain that they are entitled to more than the zones with large geographic area but smaller total population. Those from the less populated areas take the opposite view.

Consolidation of Services

The question of permitting wireless and wire services to consolidate is one of the most controversial points. In the existing radio law and under the various anti-trust laws these combinations are forbidden.

The Radio Corporation of America and the International Telegraph and Telephone Co. desire to effect a consolidation.

The basic point of difference between the proponents and opponents of this question is whether the public interest will best be served by a big combination, sometimes styled a monopoly, regulated by the Government, or by a number of competitive companies.

Through Routes for Wire and Wireless Messages

This question is whether a wire company which picks up and carries on wireless messages to points uncovered by wireless systems, and vice versa, should be permitted to charge the other company more than a certain amount for this service or whether legislation should be enacted to compel different services to relay and otherwise handle each other's business on a definite basis.

The RCA Patents

The Radio Corporation of America owns a number of valuable patents necessary to the installation of broadcasting and receiving. It is contended by some that RCA's trade practices in connection with these patents give them a complete monopoly in the broadcasting and radio communications field. RCA's answer is that they are fairly entitled to the fruits of their patents because they have spent much time and money on these devices and are only getting what is their honest due.

Should the Congress Create a Federal Communications Commission?

Pro

HON. JAMES COUZENS,
U. S. Senator, Michigan, Republican



HE bill known as Senate number 6, to create a Commission on Communications, which I introduced, has for its purpose the coordination under one agency of Governmental regulatory powers over communications, whether by wire or wireless.

At the outset, it was suggested that we should add the regulation of interstate transmission of power to the duties of this Commission and an amendment providing for this was introduced. However, it has been agreed that it is better to provide for the regulation of power by the Federal Power Commission and the plan to add these duties to the others proposed for the Commission on Communications has been abandoned.

At present the Interstate Commerce Commission is charged with the duty of regulating the telegraph and the telephone systems; the Federal Radio Commission and the Department of Commerce have control over the radio and the President of the United States has what control there is over the cable systems.

For many years the telegraph, the telephone and the cable have been interrelated in the transmission of communications. The rapid development of the radio is throwing this latest form of communications into relation with the older forms.

For example, at the present time there is no law to require through routes or connections among communications carriers; to control discriminations between competing lines; to govern the relationship between telephones and chain broadcasting, nor to provide for division of rates between transoceanic radio systems and domestic wire systems.

The inefficiency of the present method of what might be termed the scattered authority over radio is indicated by the fact that the Department of Commerce prescribes the qualifications of radio operators, has authority to suspend their licenses for violation of the regulations of the Radio Commission, inspects radio apparatus, reports to the Commission violations of the Commission's rules and designates all call letters. Meanwhile the Radio Commission licenses the radio stations and otherwise controls radio.

Cable landing licenses are issued by the President of the United States, whereas control of the wire lines within the United States is under the Interstate Commerce Commission. The Interstate Commerce Commission, however, has no authority to regulate the relations of cable companies with other communications systems.

Furthermore, there is no Governmental control over rates for radio broadcasting or chain transmission; no requirements for furnishing service, through rates or just division of joint charges.

My bill provides for the creation of a Federal Communications Commission under which all existing powers can be brought and to which new powers may be delegated in order to stabilize the communications systems of the country.—*Extracts, see 2, p. 128.*

Con

CAPT. STANFORD C. HOOVER, U. S. N.,
Chief, Communications, Navy Department



HE present Federal Radio Commission (or its equivalent) should have cognizance of licensing radio broadcasting stations only. Administration for all other types, except Government-owned stations, should be vested in the Department of Commerce.

Owing to the fact that international interests and matters of the national defense are affected by licenses of international circuits and feeder circuits in the United States, the Commerce, State, War and Navy Departments should be consulted as regards licensing policies, and such policies approved by the President, rather than by a commission. Experience shows that a commission composed of men qualified for the administration of broadcast matters are not, in general, naturally qualified through background experience, or interest, in the other communications subjects.—*Extracts, see 2, p. 128.*

Pro

JOHN E. BENTON,
General Solicitor, The National Association of Railroad and Utilities Commissioners.



HE power to regulate interstate rates of telephone companies should be left with the Interstate Commerce Commission, for the following reasons:

(1) Because that commission, by reason of the experience of its members and officials and employees, is better informed as to the legal duties of public-service corporations, and better qualified for their regulation than any new commission can be upon appointment, or for many years thereafter.

(2) Because the Interstate Commerce Commission from experience knows the difficulties which inevitably result from any disturbance or suspension of local regulatory powers, and will exercise such powers over telephone companies as are vested in it in such manner as to interfere with local regulation only in cases where substantial necessity has been found.

(3) Because a cooperative agreement, commonly called the cooperative plan, is in existence between the Interstate Commerce Commission and the State commissions, under which the Interstate Commerce Commission and the State commissions have been able almost wholly to avoid friction and litigation in the courts as to the extent of their respective powers since that plan was adopted.

(4) The State commissions fear that a new commission would be inclined to exercise its regulatory power to the fullest possible extent, and that this would result in the practical destruction of State regulatory powers, and at least would interfere with and render impossible their satisfactory exercise.

(5) The Interstate Commerce Commission has had full power to regulate rates of telephone companies for approximately 20 years. During that time no important telephone rate controversy has been brought before that commission. We believe this is because the telephone business of the country is almost wholly intrastate.—*Extracts, see 2, p. 128.*

Should the Zone Provisions of the Present Radio Law be Retained?

Pro

HON. EUGENE O. SYKES,
Member, Federal Radio Commission

I AM a very strong advocate, indeed, of the zone system. I think it is a very good thing. I think primarily that a commissioner from a zone knows and understands conditions in that zone better than someone who does not live there, and that his knowledge of the internal problems in that zone is exceedingly valuable to the other members of the commission.

I think the present boundaries are working very nicely. The lack in population in one zone I think is offset by the territory in that zone.

We have equalized very well in accordance with the Davis amendment so far as the zones are concerned, and perhaps then I think we might be excused if we go ahead and find that we can use a surplus in some other part of the country.

I think probably it might be helpful to add to the present bill a further proviso that after the equalization, facilities may be further used in other zones, if the commission could be empowered so to do. That would permit us to use where we can territorially, say in the fifth zone and some in the third zone, the extra facilities. I think an amendment would cover that. I do not think you would have to repeal the Davis amendment at all to do that, but I think a proviso permitting the use of these frequencies when we can, because of separation and so forth, might help the situation.

The law requiring equality is pretty rigid on equal division among the zones.

I think an amendment along that line that would permit further use of radio facilities might be helpful.

The commission as a whole has not considered it. However, we referred the matter to the assistant secretary of the commission, and had him get up certain figures and data, which he has submitted to the commission. But the commission has never acted upon it.

Each zone is absolutely equal under the Davis amendment, and is entitled to an equal part, a one-fifth part of the radio facilities of the entire country.

I think as to the first, second, third and fourth zones there is very little difference in population, but there is a good deal of difference in population in the fifth zone, the western zone, as compared with the other zones.—*Extracts, see 2, p. 128.*

Pro

WILLIAM S. HEDGES,
President, National Association of Broadcasters, Inc.

I BELIEVE that the zone system as established by the law and amendments thereto is in theory utterly unsound, that it is unparalleled in our entire legislative history, and that in practice it has proved a serious handicap to sound administration and an insurmountable barrier to adequate and scientifically efficient radio service to the public, and that, therefore, we ask that the law be so amended as to strike out all references to the five zones, or to any of them, to the end that a more efficient use may be made of the very limited number of channels available for broadcasting, and we further ask that the law as amended shall make service to the radio listeners of the United States the sole basis for the distribution of radio facilities.

We believe that it would clear up such situations as we have in the State of Iowa and the State of Maryland. Our reason for that is this, that we do not believe that a station such as WLW at Cincinnati, Ohio, with high power, which finds itself in the southwest corner, so to speak, of the second zone, should be charged solely to that zone, because it is rendering a service that is enjoyed by listeners in the third, the second, and the fourth zones, and in some cases in the first zone. To charge that to one zone does not represent the service that that station is rendering.

The station which I operate, station WMAQ, of Chicago, is heard by listeners in the second zone. The State of Michigan is in the second zone. And that is just across the lake, (Lake Michigan), from Chicago, and, in fact, a very large percentage of our listeners are in Michigan. Yet our station is charged to the fourth zone. Our station is also heard in the third zone, and I have had many reports from the fifth zone of the reception of our station. It seems to me that the commission should be empowered to take into consideration the service areas that these stations have, rather than simply the fact that they may be located in one zone.

It is our contention that while four zones are approximately the same in point of population, there is one zone that has about two-fifths of the population of the other zones. There any similarity between the zones ceases. They are not alike in geographical extent, in geophysical characteristics, available capital for broadcasting, or available talent for broadcasting.—*Extracts, see 2, p. 128.*

Should Communications Services be Permitted to Consolidate?

Pro

OWEN D. YOUNG,

Chairman, Board of Directors, Radio Corporation of America



SETTING regulation of rates and service by competition in the public service field has not been satisfactory in this country or elsewhere, and it has largely disappeared. Our own telegraph services are about the only ones left in the world which continue that expensive and archaic method. When we think that in order to establish two competitive telegraph systems we must duplicate poles and wires overland and cables undersea, we must duplicate offices, equipment and personnel from messenger boys to president, it is obvious that both the capital cost and the labor cost is vastly more than it would be were such duplication avoided. Even granted that competition develops more effective management—and I think there is something to be said for that view—it is hopeless, under such circumstances, to expect the savings of management to be enough to off-set such tremendous waste as results from duplication. If, now, we are to add the duplicate services not only of one radio concern, but two or more, to the wire services which exist in telegraphy, and we establish four sets of offices and personnel, the competition will inevitably become ruinous, wages will be inadequate, capital will be lost, and ultimately services will be demoralized, all to the disadvantage of the people who really want the best communications at the lowest cost. Under the competitive system our bill for communications, viewed from the standpoint of society, is bound to be disastrously large. Therefore, on the ground of quality of service, on the ground of research and development for service, and on the ground of ultimate cost to the community of service, I am forced to the conclusion that a single company, under adequate government regulation, can do our record communication service better and more cheaply than under the competitive system.

Whether or not what I have said is true regarding unification of the domestic telegraph services of the country, I am sure it is true in the field of international telegraph services. There, from the standpoint of national interest, a monopoly, either regulated by the government or owned by the government, is a necessity, and a necessity now. If you have any hesitation about unifying our external communications in the hands of a private company under government control, then I beg of you, in the national interest, to unify them under government ownership in order that America may not be left, in the external communication field, subject to the dictation and control of foreign companies or governments. At the time of the Treaty of Versailles, I have been told, the three things which all governments regarded as important for national protection and prestige were the control of (1) international transportation, (2) international communication, and (3) petroleum. In international transportation I am told that America is not on a parity in merchant shipping with other countries, but I congratulate the Congress on the policy which it has adopted of encouraging American shipping. In the matter of petroleum, nature has given

Continued on next page

Con

NEWCOMB CARLTON,

President, Western Union Telegraph Company



WHEN you deprive a growing nation, such as is the United States, of the stimulating effects of competition in communications, in my judgment you have done a deadly thing.

I say, with the full authority of my associates and my directors, who are unanimous, that whatever the risk is we will assume it on behalf of the stockholders and continue to compete with any aggregation that may be presented, be it radio and cable, or cable and cable, but we are not to be included in any picture of monopoly either by land or by sea.

I think if Congress wants to authorize specifically the consolidation of the International and the Radio Corporation of America it should be done by a specific enabling act. But it should not encourage monopoly either now or after I am gone.

I think that it should also consider, when you are talking about monopoly, that there is only one organization in the United States that can adequately exercise a monopoly. If you want all the telegraph and other means of communication consolidated under one head, you must go to the American Telephone and Telegraph Co. They are the only ones. I have not heard them asking for a monopoly.

I should say that there was a perfectly distinct problem that surrounded the radio business which dealt with waves, their length and their number, which places them in a class by themselves. It has no similarity to any problem of wire companies and should be administered by men who are technically alert to the development of radio and who may know nothing about communications by wire. I think there is a distinct function which should be discharged by a committee of specialists in radio.

If Congress gives permission for the Radio and the International to join hands specifically, there will not be any monopoly on the Atlantic Ocean, because we will not join them. We will supply, to the best of our ability, the best competition we know how.

What is the matter with the present situation? What have you got? You have got two active cable companies fighting for business. When they get into trouble, as they have recently done on account of a widespread earthquake, what do you find? You find them cooperating, using each others facilities, using each others ships, lending each other cable, cooperating as brothers, but fighting for business.

Nothing could be better than the spirit of competition between cable companies.

And then, quite apart from that, there is a new means of communication, the radio, battling for business, improving its methods of transmission. While I have no objection to a combination, in my judgment, if you want to keep the communications business of America healthy and virile and progressive, you want to leave the radio to fight for its own and the two cable companies to fight for their own, and do not be deceived by the talk of the

Continued on next page

Pro

OWEN D. YOUNG—*Continued*

us a vast supply, but I confess to a feeling, without knowing much about the subject, that we are careless and wasteful of this great resource, and unless we take it sensibly in hand our sons will suffer for our prodigality. We need not deny ourselves the full use of the resource—we only need to prevent waste from a national point of view. In the field of international communications Great Britain had developed, prior to the war, as the binding cords of her great Dominions, a cable system which was and is predominant. It was with this in mind that President Wilson asked for the conservation of our American rights and resources in the radio field, and made an appeal to Americans having such rights not to part with them, but to use them in establishing an international communication system for the United States. In was in response to that appeal that the Radio Corporation of America was organized, and I assumed the responsibility, perhaps more than any other individual, of mobilizing our national radio resources in order that we might become an important factor in international communications. It is with great pride that I am able to say that the Radio Corporation of America has been able to take a foremost place in radio communication throughout the world. The question before us is whether we can hold that place. Whether we look east or west we find cables and radio united in all the great nations of the world as a protection to their national interests. In the field of international communications Great Britain has not only permitted but compelled such unification. France has done the same. Germany is in the process of doing it. Italy has unified control. Japan has both services unified under government control. How can our competitive companies in America, three of them or more, meet, from the standpoint of national interest, these consolidated units in other countries? Any one of our three companies may be obliged, to save itself from ruin in the international field, to accept such terms as the unified interests may dictate to us. This may affect not only rates of service, but character of service. It may indeed affect quality of service. The communication services of the United States, which are essential to the development and extension of our business in times of peace and always essential to the national defense, should not be put in a position where others may dictate to us here and we are powerless to protect ourselves. It was with this in mind and as a first step, that I was instrumental in arranging for unification of the radio telegraph services with those of the International Telephone & Telegraph Co. if and when the laws of the United States permit. I should like to see a similar arrangement made between the International Company and the Western Union, so that Congress may know that the moment enabling acts are passed unification of these services could be had, under the control of the government of the United States. I make no apology for that arrangement. Insofar as I am concerned I have done my part towards what I conceive to be the protection of the interests of my country. If Congress does not pass the necessary enabling acts it must take the responsibility of weakening, perhaps irretrievably, the position of the United States in the field of international communications. Parity is important to the United States in more fields than war ships; in none more so than communications.

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Con

NEWCOMB CARLTON—*Continued*

menace of the merger, because that is nonsense.

I have testified again and again, and I am glad to repeat it, that I consider that radio is one of the most valuable adjuncts of communication that is open to the use of the business public. It ought to be encouraged; it ought to be fostered, and within the limits of sound business everybody ought to cooperate. But that does not mean that it has to be forcibly fed and kept in a hothouse and petted. It should be put out on its own two feet to learn the struggles of competition, to improve the fiber of its soul, and to increase the ability to do business in the face of an opponent.—*Extracts, see 2, p. 128.*

Con

ELLERY W. STONE,

President, Kolster Radio Corporation and Federal Telegraph Co.



AM very strongly opposed to the recommendation that section 15 of the proposed bill be deleted and that section 17 of the present radio act be repealed. This proposal strikes at the very heart of radio communication and is distinctly against the public interest.

We are opposed to the repeal of this section because it serves as an effective barrier to the consummation of the agreement between the Radio Corporation of America and the International Telephone and Telegraph Co., covering the purchase by the latter from the former of R. C. A. Communications (Inc.), the subsidiary which now conducts all the public international radiotelegraph business between the United States and foreign countries.

Congress was fully aware at the time of the passage of this law of the dominating position of the Radio Corporation of America in the radio industry, and this provision and the other antimonopoly provisions of the radio act of 1927 were included in the act expressly for the purpose of controlling the Radio Corporation of America and the companies associated with it through patent licensing agreements.

The purpose of section 17 of the radio act goes beyond the provisions of the anti-trust laws, because it specifically prohibits the elimination of competition between basic means of electrical communication; that is, radio and cable or other wired communication, which is quite a different matter from the prohibition against monopoly contained in the anti-trust laws.

At the present time the regulation of radio and wire rates is vested in the Interstate Commerce Commission, but, that commission has been so occupied in railroad regulation that it has never undertaken the regulation of rates for services of communication. So far as we are advised, there is no change in view in this respect.

One of the purposes of the Couzens bill was to transfer the unused powers of communication rate regulation from the Interstate Commerce Commission to the proposed communications commission in order that such rate regulating might be undertaken immediately.

It follows, therefore, that if the Radio Corporation of America-International Telegraph & Telephone Co. merger takes place through the repeal or section 17, and if Congress similarly heeds the recommendation not to transfer the rate regulation from the Interstate Commerce Commission for two or three years, by delaying that period in creating a communications commission,

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Pro

OWEN D. YOUNG—Continued

served. In fact, I may say that we must learn how to regulate adequately our public service in private hands, or there will be no alternative but the government ownership of such services.—*Extracts, see 2, p. 128.*

Pro

SOSTHENES BEHN,

President, International Telephone & Telegraph Co.,
New York City

IN the bill now before the Senate Committee on Interstate Commerce it is proposed to ratify and maintain the provisions of section 17 of the radio act of 1927 which do not permit of the merger of wire and wireless companies rendering an international service, as well as to maintain the provisions of the anti-trust laws which prohibit the merger of competing wire and cable companies. Whether the powers of the Interstate Commerce Commission be continued or the proposed communications commission be established, it is my belief that the consolidation of wire, wireless, and cable companies should not only be permitted, but even encouraged; that such consolidations are necessary to promote to the fullest extent the development of telegraph, cable and wireless services; that such development will result in incalculable benefit to the American people in their national economic and social welfare as well as in the encouragement of international intercourse and trade; that it is essential that American communications services be placed on at least an equal footing with the coordinated foreign communications services; and that, therefore, the necessary authority should be granted to permit of such mergers of wire companies as well as wire and wireless companies, providing such mergers will not result in increased rates for the services rendered.

I am of the opinion that the legislation and regulations covering the control of wire and wireless services should permit of their merger or association, providing such arrangements do not result in increased rates. I am firmly of the opinion that if such mergers are permitted there will not be any attempt to increase rates, but, on the contrary, through the economies which will be brought about and the elimination of unnecessary duplication of plant, the tendency will be to reduce rates and increase the volume of traffic. This should be ample safeguard to the public interests. If, on the other hand, mergers are not permitted, the result is clear that rates will likely be maintained substantially as they are, and that reductions will be grudgingly made because of increasing separate heavy capital investments and maintenance and general administrative charges.

Allowing of consolidations, the regulation of rates covering the national services, after a reasonable adjustment period to allow of the elimination of duplications and the establishment of new services, can take its regular course. The practicability of regulating international rates is one that will have to be carefully considered, since there is always more than one country involved, and regulation by this country may result in an equal demand on the part of the other countries connected, but I believe that by the reservation of the right to regulate such rates the interests of the Government and the people of this country would be fully protected.

The policy of our Government in preventing mergers, especially between companies rendering cable and wireless services, is in singular contrast to that of other govern-

Continued on next page.

Con

ELLERY W. STONE—Continued

there will result a monopoly without effective rate regulation.

Since there is only one system of international radio-telegraph communication in operation in the United States and hence affected by section 17, the merger of international radio and cable communication can only apply to a merger in which the Radio Corporation of America is involved. The Radio Corporation has announced its intention to merge with International Telephone & Telegraph Co. as soon as changes in the radio act would permit.

If I am not mistaken, all of our Presidents since President Grant have taken the position—and this was confirmed in 1921 by the passage of the Kellogg Act—that the interests of the United States are not served if a cable company be permitted to land a cable in the United States connecting to foreign countries when the operation of such a cable is tied up under an exclusive traffic agreement which would bar other cable companies from laying cables between the points involved.

The attention of the House of Representatives was invited to this provision in the submarine cable licensing act known as the Kellogg Act with respect to the possibility of applying its provisions to radio legislation on December 1, 1923. Then, of course, this section was included in the radio act of 1927. The effect of it would appear to be, and I think we may say, that Congress intended that the authority given the President to withhold such licenses from cable companies, if there were exclusive traffic agreements involved, should apply to radio. Otherwise, there would appear to be no earthly reason for the inclusion of this section in the radio act.—*Extracts, see 2, p. 128.*

Con

CAPT. STANFORD C. HOOPER,

Director of Naval Communications, Navy Department

WHEN the Radio Corporation of America was first formed, I advised the chairman of the board of directors to keep clear of entangling alliances with the cable companies, and for two reasons: First, the British dominated the cables, and I feared their skill and experience in gaining control should radio tie up with them; and, second, I felt that the radio was the great American opportunity, and with radio competition with cables the service would improve, and rates would be reduced. All this has come to pass.

The Radio Corporation had a hard struggle in the beginning. Some twenty millions were invested, as a result of the personal recommendation of Admiral Bullard and myself that the company might go ahead, and several years passed with only deficit. I wish to take the responsibility, because Admiral Bullard is now dead, and I advised him on the subject.

What has happened to our original American Radio Co.? They have built up their system, have carried the flag to all parts of the world, but have thus far been refused feeder circuits for collection and delivery of traffic in our own country. So they are ready to sell out, and come forward recommending a merger with the next strongest company, but which has its own domestic delivery telegraph service. Are they giving up—discouraged? What brings about the desire to merge? Possibly the realization on the part of the newer company that the

Continued on next page

Pro

SOSTHENES BEHN—*Continued*

ments holding an equally important position in the international communications field. There is no country in the world, except ours, having extensive interests in international communications, where there is legislation prohibiting the amalgamation of cable and wireless service.

We feel that it is evident that if this country is to hold its own in the field of foreign communications, its policy must permit the mergers between American companies furnishing foreign communications and encourage them, just as in the Webb-Pomerene Act Congress decided to encourage and permit consolidations in the export of commodities.

The understanding with respect to a tentative plan for the acquisition by the International Corporation of the communications business of the Radio Corporation of America is that, subject to advice and approval of counsel and the board of directors, and governmental approval and other terms and conditions to be mentioned in a memorandum agreement, which has not been made, the International Corporation will make payment to Radio Corporation by the delivery on the date of closing after necessary governmental action, of 200,000 shares of International Telephone & Telegraph Corporation stock and by the delivery of 40,000 shares annually during the period of five years after the date of closing, the stock to be of the then par value of \$100 or the equivalent number of shares in case of subdivision. All that we have agreed to is the property and price.

It is also understood that pending governmental approval and until the closing date, both companies will proceed with their respective development plans, but to the extent possible ultimate duplication and conflicting contractual arrangements will be avoided.

I am confident that the carrying out of this understanding will be in the best interests of the development of the communications services both within our country and in our relations with the other countries of the world; and I submit that when legislation is enacted by Congress covering communications services, the consolidation of wire companies and of wire and wireless companies should be permitted.

I feel that the communications business—it seems rather peculiar to say it—is in its infancy, because it seems like rather an old man to speak of it as an infant; but I believe the telegraph business has been rather stagnant in the country. In telegraph systems very few big improvements have been made in the last 20 years. I believe we are on the eve of extraordinary improvements in the transmission of record communications. Can I picture to you a situation where it will be possible for the sender to send his message, and the one who is to receive it will be at home, but the receiver will receive it when he arrives home; it will stay in suspense if the party is out at the time, and he will when he returns turn on a faucet and get his message. Now, all of those things are coming. It will cost millions of dollars and many of those millions of dollars will not show any return immediately. If you want the benefits for the people of the United States, and if you think these consolidations will not result in increased rates, I advocate and recommend that these companies, whether it is our company or any other company, be given every possible facility to develop these improvements, and increase their facilities.—*Extracts, see 2, p. 128.*

Con

CAPT. S. C. HOOPER—*Continued*

volume of traffic cannot support two great radio companies in this country has a great deal to do with it. I do not know.

A merger, such as desired, means a monopoly of American radio-telegraph and cables. Which nation will own the cables terminating on our shore in the end is doubtful in my mind. A monopoly means probably the strongest position for competition against a foreign monopoly, a minimum of overhead, a possible decrease in incentive for invention, but rate regulation. Rate regulation is a difficult problem, both for the companies and for the governments. And rate regulation of international circuits means international agreements-treaties. Are we going to be able to obtain ratification of treaties on rates, ever changing with all nations? How long will this take? How honest will be the figures between nations struggling for national trade advantages? Rate regulation is costly and to be avoided in international affairs; it is a nuisance. If not a monopoly, with rate control, what then? Can the profits of such a company be regulated? They probably can, but how could a company whose profits are regulated compete with a similar foreign company not restricted by similar regulation?

There are four types of rapid communication systems: (1) cables, (2) radiotelegraph, (3) radiotelephone (and possibly later cable telephony), and, to a certain extent, (4) air mail. The latter may press heavily on the business in the not far distant future—at least between countries in the Western Hemisphere.

The easiest way, with several advantages would be to permit competition to continue between these types of services (radio versus cables, etc.) along natural healthy lines, each continuing in all manner of endeavor and inventive genius, to outdo the other, with the continuing and guaranteed advantages of competition. One large radio-telegraph company is enough, and probably all the available wave supply will permit. Allow a merger of radio systems. Limit this type to one monopoly company for international circuits by all means. The cable competition will be all that is necessary for years to come, and we will have a strong American radio-telegraph company. Insure them the necessary outlet of feeder circuits within our own country, and without further delay. Two radio-telegraph companies are one too many. Naturally they wish to merge. Also they require too many wave channels—more than the nations share of the world's total.

The transoceanic radio-telephone is pushing forward. One circuit across the Atlantic a year ago, and doubt as to its lucrativeness. Today there is urgent demand for three, and they are paying expenses. Both radio-telegraph companies and cable companies are eyeing this new competition with slight apprehension.

And the fourth type of competition, the air mail, is spreading across the continent, over into the West Indies, to Central America and Panama, with plans for extending into South America. This type will eat heavily into some classes of traffic in time.

This sort of competition is all that is necessary, gives American communications a place in the sun, and guarantees prosperity to all without discouraging the incentive inherently resulting from a monopoly. How inconsistent it appears, for the Nation to back its air mail extensions, and its American-owned ships to the limit, and to crush its American International Radio Communications. We have not realized what we were doing.—*Extracts, see 2, p. 128.*

Should Through Telegraph-Radio Routes be Made Compulsory?

Pro

GENERAL JAMES G. HARBORD,
President, Radio Corporation of America



THE Radio Corporation of America has long suffered from the lack of domestic outlets for its international telegraph system. For years it has been seeking means by radio to acquire such outlets and to compete in the field of domestic telegraphy.

The pressure of this need in 1924 induced RCA to make the trans-Pacific collection and delivery arrangement with Western Union and reluctantly submit to the exclusive provisions in that contract which Western Union demanded. To get this service RCA pays not only as others pay for similar telegraph service, but is also compelled to share with Western Union its trans-ocean radio tolls. President Carlton minimizes the tribute he exacts when he says:

"We thought that if they were going to use our offices not only should they pay the telegraph charge which was the simple charge paid by anyone who wished to file a message, but they should also pay some percentage on the tolls they received for our expenses for bookkeeping and collecting, and so forth."

This tribute is 3% of the radio tolls on every trans-Pacific message RCA sends, but since RCA gets but one-half of the trans-ocean tolls while its foreign correspondents get the other half, the tribute RCA pays Western Union is 6% of the sum received by RCA for the transmission of all such messages.

On the long, trans-ocean haul this is no mean sum and observe it is paid over and above the regular tolls Western Union charges the general public for like service.

According to the testimony this tribute is for "book-keeping and collecting, and so forth." The Western Union also keeps books and collects "and so forth" for traffic handled for the general public, but RCA and it only is charged extra for Western Union's "bookkeeping and collecting, and so forth." RCA keeps books too on the traffic Western Union handles for it. There appears to be no reason why Western Union more than RCA should be paid for its own bookkeeping.

This tribute is a strangle hold which the old agency has on the new. It replaced an earlier arrangement by which the Western Union received ten instead of three per cent.

The money tribute which RCA must pay wire line organizations is by no means its worst form of dependence. Worse still is the fact that radio cannot meet its own customers face to face and do business with them over its own counters directly but must rely on wire companies for its customer contacts at interior domestic points. One cannot, with any great certainty, rely on competitors for the intensive efforts necessary to develop his own business.

Freedom from domination by adverse interests abroad, freedom from domination by adverse interests at home radio has long striven for. This freedom it needs in order that it may serve. The Government has not always

(Continued on page 128)

Con

NEWCOMB CARLTON,
President, Western Union Telegraph Company



IT is the policy of the Western Union to do whatever they can within the scheme and scope of good business to encourage the development of radio. We think that it is a very important branch of communications. It deserves to be encouraged. It is to our interest to encourage it. And therefore we are always in a position of opening our offices to a company that wishes to demonstrate the superiority of its services over our own. They will have their agents, full of the zeal of youth, bustling around and soliciting business. Out of that cloud of business, whatever it is, large or small, we get our share.

We have an exclusive contract for the Pacific business of the Radio Corporation, and it is running for twenty-odd years. We have an exclusive contract with the Radio Corporation for ship to shore running a total of 10 years.

It began by negotiations, before the Radio Corporation came into being, with the American Marconi Co., in 1911. I made a contract to collect and distribute all of the radio business of the American Marconi, so that the Western Union officers were radio officers. Our theory at that time and subsequently was that we would make every telegraph office a medium for any kind of communication save that of the telephone. If a man wanted radio, there it was. If he wanted cable or if he wanted telegraph, they were there.

That went on for several years, when it was canceled by mutual consent.

General Harbord and I began our conversations to re-establish the Western Union with the Radio Corporation as the collector and distributor and we discussed various systems and methods. The idea of the Radio Corporation was to use our offices and simply pay a small toll on the transmission of each message from point of origin to the head of their radio system in New York. That was not good enough, because we thought that if they were going to use our offices, not only should they pay the telegraph charge which was the simple charge paid by anyone who wished to file a message, but they should also pay some percentage on the tolls they received for our expenses for bookkeeping and collecting and so forth. We never could hit it off.

I made them a proposal that we would take them into all our offices; they might put their signs on all our offices, and they could have as many of their own offices as they chose, wherever they pleased, but they must pay us a certain small percentage on the total traffic both in and out.

We finally made a contract on the Pacific, but we never made it on the Atlantic. Mr. Owen Young finally took charge of the negotiations, and his view, which may have been the correct one, was that he thought it was better for the radio to "go it alone" than to come under the influences of the Western Union, although he agreed to the arrangement between the Western Union and the Radio Corporation on their Pacific traffic.

Is the Radio Corporation's Patent Control Against Public Interest?

Pro

OSWALD F. SHUETTE,

Executive Secretary, Radio Protective Association



THE patent situation in the radio industry is based on the fact that the Radio Corporation of America and its affiliated companies claim to hold over 3,500 patents, and on that basis they pretend that they are in a position to monopolize the industry and to keep anybody else from getting into it or from remaining in it.

It is not the patents that they hold, but the fact that behind them they have upwards of five billions of dollars in capitalization—in their own and affiliated companies—so that anyone who attempts to get into the art of radio in any phase, whether in manufacturing, communications, broadcasting, television, talking movies, or now even in the control of the motion-picture interests; anyone who attempts to get into any of these phases of the art must face that \$5,000,000,000 aggregation of capital.

In the case of almost every patent suit, even if they lose, it takes two years to fight the case through to the Supreme Court of the United States, and at a cost of anywhere from \$100,000 to \$200,000, and by the time the litigation comes to an end, even if successful, the complainant may not get any real advantage, because of the great cost and the delay; even the parties bringing the suit may be dead. The Radio Corporation of America collected millions of dollars in royalties on the Armstrong patent, and it has been declared of no effect, but the people are out of business. Then they took up the Alexander-son patent, which is a basic patent on tuned radio frequencies according to their claim, and they succeeded in getting two United States district courts in this country, one in New York and one in New Jersey, to decide that the Alexander-son patent was a valid patent.

Since that time, on the basis of these two United States district court adjudications, which were not appealed, and which were not appealable because of the surrender of the defendants in those cases, the Radio Corporation of America succeeded in getting 27 radio set makers in the United States to take out licenses under what they call their tuned radio frequency patents—without even naming the patents—and in return for that permission the set makers paid 7½ per cent royalty, not on the cost of making the sets, but on the cost of everything that went with it—the cabinet, the loud speaker, the battery eliminators, and even the packing boxes.

The case in which we tried to get the Government to intervene is a case of one of our members, the Advance Electrical Co., of Los Angeles. In that case we failed to get any evidence of Government interest in the Schloemilch-Vou Bronck patent, but our attorneys presented that patent to the court, and argument was had on the 4th of January on a preliminary injunction, and the court has not yet decided the case, but it certainly looks hopeful.

The fundamental question that the Government has had to face ever since there has been radio, is whether there

Continued on next page

Con

GENERAL JAMES G. HARBORD,

President, Radio Corporation of America



S conceived and organized in October, 1919, RCA was a communications company. The great commerce in the entertainment field had then no existence. During the corporation's first year, 1920, radio in the entertainment field was the plaything of amateur operators. In that year RCA's sales amounted to a half million dollars. During the next year broadcasting had small beginning and sales were a million and a half dollars.

In the seven years I have served the corporation its sales of radio apparatus have mounted from eleven millions of dollars in 1922 to eighty-seven million in 1928. Not radio telegraph devices but broadcast devices have brought about this vast increase. Radio Telegraphy, its field as originally conceived, has been responsible for a fraction over nine per cent, whereas merchandising radio receiving sets, the field newly developed since RCA was created, has been responsible for over eighty-six per cent of the corporation's total revenues from its organization up to June 30, 1929.

In 1922 it was operating eight international circuits directly serving six countries; it now operates forty-three circuits directly serving thirty-two countries. In 1922 it handled twenty-two million paid words in international telegraphy; in 1928, forty-seven million.

Spark sets, originally used in radio became obsolete when alternators came into use; now alternators are giving way to short wave tube transmitters. Obsolescence more than use deprives radio devices of their value and, in radio, earnings must quickly return capital investments if they are to be returned at all.

To most countries where radio has gone its advent has reduced the rates. Radio brought the first reductions international telegraph rates knew in more than thirty years. And it has paid its own way, not at the expense of older services but by developing new reservoirs of traffic. Records show that where radio has gone neither the gross nor the net revenues of the cables have declined.

I bear witness before your Committee to the integrity and high mindedness of those who served the Radio Corporation of America in achieving such results.

In my solemn judgment no just cause exists for the hostility to which it has been subjected. Those attacks invariably revert to the unification of the control of many patents, the combined use of which made the present radio art possible. Such attacks ignore the fact that this unification did not control an existing art—but created—not a new art but many new arts.

Modern radio receiving sets, modern broadcast transmitters, international radio circuits directly connecting the United States with thirty-two foreign countries, effective communication with and between ships on the high seas, the highest class of talking machines with and without motion pictures, and more besides have been made possible through the patent unification so often denounced.

Under patents it acquired and developed at vast ex-

Continued on next page

Pro

OSWALD F. SHUTTE—Continued

should be competition in radio or whether there should be a monopoly. The issue has always been raised that a monopoly would be able more effectively to make use of these narrow channels, better able to make progress in the art, better able to develop radio, than competition among individuals. So far, every time the issue has come before Congress, Congress has decided that there must be competition, and from year to year it has written into the law new requirements to force the Government authorities, either the Department of Commerce or the Federal Radio Commission, to see that there shall be competition and not monopoly in radio.—*Extracts, see 2, p. 128.*

Pro

B. J. GRIGSBY,

President, Grigsby-Grunow Co.



HE Grigsby-Grunow Co. was organized in 1921 to make automobile accessories. In 1924 we entered the radio field, manufacturing loud-speakers and radio-battery eliminators. In 1927 our company was the largest manufacturer of such eliminators in the United States.

We are licensees under the receiving-set patents of the Radio Corporation of America, the General Electric Co., the Westinghouse Co., and the American Telephone & Telegraph Co., sometimes known as the Radio Trust. In the year and a half in which we have made radio sets we have paid that monopoly \$5,302,879.15 in royalties. If we had not been compelled to add this royalty to our manufacturing cost, the retail purchasers of Majestic sets could have been saved approximately \$15,000,000.

We did not pay this royalty because we considered these patents worth such a royalty. We did not believe we needed these patents, and none of them had been adjudicated. But the radio combine had so terrorized the industry and had so intimidated the dealers and jobbers everywhere that they were afraid to handle what they called "unlicensed" sets.

Our bankers said they would not finance us unless we took out a license. They said they would not finance a patent fight against such a monopoly, and there was nothing left for us to do but to sign the license agreement. The merits of the patents were never examined by the bankers. The merits of the patents had nothing to do with the case.

Originally this license contract called for a royalty of 7½ per cent of our gross receipts, not only on the radio apparatus involved, but on the cabinets and even the packing cases in which we sold them. Of course, the R. C. A. had no patent on either cabinets or packing cases, but it had the power to compel the payment of any royalties it pleased, and therefore put the royalty on the manufacturers' price of the complete set.

As a result, some of the manufacturers were not putting their sets in cabinets and thus were saving this royalty. We built our huge sales on the economies effected by our large mass production. It was because we served notice on the Radio Trust that unless it changed its policy we would manufacture our cabinets through a separate company, so that it would not be able to collect these royalties. The Radio Corporation of America changed its policy and abandoned the royalty on cabinets.

Even with this deduction, however, no industry can long pay 7½ per cent royalty to its competitor. The

Continued on next page

Con

GENERAL JAMES G. HARBORD

pense, the Radio Corporation has elected to license many radio manufacturers, insisting always that an apparent ability to serve well the public should be a condition to the granting of a license. License fees are but the reasonable contribution of those who pay them to those whose efforts and money brought about the development and the purchase of the inventions, joint use of which must be made in the manufacture of modern radio devices. RCA's licensees have prospered. In 1927 their sales amounted to forty-six millions of dollars, in 1928 to one hundred twenty-eight millions, and during the first half of 1929 to sixty-four millions. Some whose voices once were loudest in the chorus of denunciation have since become licensees and their denunciation ceased with their licensing. Some remain but the goal they seek is not the remedies for which they ask you, but licenses under the very patents they decry.

Let this patent unification be at an end tomorrow, let each organization use only the radio patents it actually owns, let licensees operate only under their own inventions and not use those licensed to them by others and on that day will topple the whole structure of service which radio is rendering for the benefit and the entertainment of the American public.

The Radio Corporation of America has attained leadership in its field. Its organization was inspired by patriotism; its position has been won by courage, energy and skill added to the patriotism which was its original inspiration. In the years I have served it I have had no reason to doubt that from the date of its organization it has steadily rendered an increasing public service to our people, to our commerce and to the betterment of our relations with other countries. The American people have rewarded that service.—*Extracts, see 2, p. 128.*

Con

COL. MANTON DAVIS,

Vice-President and General Attorney, Radio Corporation of America



NUMBER of people have built their own radio stations for broadcasting as far as they could in violation, as our company believed, of its patents that covered those radio stations, under which patents we, as patentees, were given the exclusive right to make, to use and to sell equipment of that kind. Now a number of these people have built their own, in so far as they could, in violation of our patent rights. But the tubes they could not build. They were too complicated. They required too much technical and engineering skill. And thereupon they called upon us to assist them in the completion of the violation of our patents.

Under the patent law there is such a thing as "contributory infringement." That is where a man helps another to infringe. The position of my corporation was that if supplied the tubes to go into these stations that were built in violation of its patents, it would itself become a contributory infringer of its own patents, and would preclude itself from insisting upon or enforcing its rights.

Now the company has not always adhered to that rule. It has sometimes done this. There have been smaller stations where applications were made for the purchase of tubes and our company has thereupon issued to that station a license for \$1 to operate the infringing station

Continued on next page

Pro

B. J. GRIGSBY—Continued

combine could sell its products and make a profit of 7½ per cent at a price that would represent only our cost and therefore eventually bankrupt us. If there were merit in any of the combine's patents, we would have no objection to dealing with the individual companies that owned these patents, but we do protest that it is a violation of the anti-monopoly laws to compel us to deal with all of them as one group and to take all of their patents, and to pay a royalty, not on the merit of a patent but solely on the power of the combination to destroy us unless we surrender.

When we took our license in 1928 the Radio Corporation of America compelled us to buy the license of a bankrupt company and we were compelled to assume the obligations of that bankrupt company, which protected the Radio Corporation against loss.

The patent situation in the radio industry is becoming intolerable. When the Radio Corporation fixed its royalty rate at 7½ per cent, it did so on the pretense that it had a complete monopoly of the radio patent situation and that its patents covered every part of the radio receiving set. This is not true. We are now paying royalties to three other patent owners, and have been sued by five additional companies, claiming infringement of seven patents. In no case has the Radio Corporation protected us against these patents or helped us in the suits which have been filed against us.

The patent licenses we were thus compelled to take out include one under the patents of the Radio Frequencies Laboratories on a circuit. We have also had to take out a license under the Lektophone patent. This is a patent on the loud-speaker cone. When we manufactured our loud speaker under the R. C. A. patents, we copied directly the 104A type of Radio Corporation speaker. When the Lektophone Co. charged us with infringement, we tried to get some help from the Radio Corporation of America, but they refused to give it to us, because they had taken out a personal license from the Lektophone Co. and had thus acknowledged the validity of its patents. But the radio combine did not take out a license to protect its licensees and so we had to pay additional royalties to the Lektophone Co. on the same speaker which we were making under the Radio Corporation of America patents. Later, again on this same speaker, we were threatened by the Magnavox Co., who brought suit against us, but not against the Radio Corporation, although the construction of the speakers is identical.

We have also a license under the Lowell and Dunmore patents, which has recently been upheld in a suit against the R. C. A. Further, to show that the members of the Radio combine, individually, or as a group, do not own patents covering even standard types of sets, we are also being sued at present by the following, in addition to the Magnavox suit mentioned: The Hazeltine Corporation (two patents), also LaTour Corporation (two patents), Federal Telegraph Co. (Kolster patent), Edelman and De Forest. Besides this, we have been threatened by at least a dozen owners of other patents. Just two days ago another suit was filed by De Forest.

The distinction between the licensing policy of the radio combine and that of the other patent owners is that the combine is seeking to dominate the industry and create a monopoly, while the others are simply trying to collect revenue from their patents. — *Extracts, see 2, p. 128.*

Con

COL. MANTON DAVIS—Continued

that had been built, and thereupon the company furnished the tubes desired. That is not an invariable practice. The company has reserved to itself the decision from case to case as it arises, whether it would license the station for a dollar and sell the tubes such people could not make, or would decline to sell any part of the equipment at all. That is the whole story.

The discrimination results from the fact that some stations are little stations in remote places where perhaps it would be difficult to get the capital to build the kind of station that we do build, and, if I may say so, it is our practical contribution in small places. But we would not permit a great big station to be built in violation of our patents in one of the metropolitan communities and then furnish it such appliances as the builder could not make himself.

The reason would be that the great station is a profitable thing which we desire to sell ourselves, and we would not be willing to let the other chap go four-fifths of the way or five-sixths of the way in violation of our patents and then, ourselves, help him the rest of the way.

We could not go way down in the remote Southwest to a small place and build a little station without loss, so we are disposed to acquiesce in something that we do not think is legally right, but it is a practice, you might say, in which we acquiesce.

Statements were made before the Senate Committee on Interstate Commerce concerning the litigation where the Schloemilch and Von Bronck patent were involved.

Some of these statements were that the Alexanderson patent was "litigated in a sort of left-handed way"; that "the Von Bronck patent was litigated up to the Supreme Court in Canada where it was decided that it had 'priority'; that the litigation before the United States court 'was a more or less informal proceeding'. It was not really a litigation on the question of the Schloemilch and Von Bronck patent"; that this litigation "was rather a put-up job." The witness said he thought the United States had not intervened in the litigation which sustained the Alexanderson patent but that the policy in this respect had recently been changed by the Department of Justice; that he had made a study of these patents and his conclusion was "that the Schloemilch and Von Bronck patent anticipates the Alexanderson patent."

The American litigation referred to was not appealed and is now final. In the Canadian litigation, on the other hand, the Alexanderson patent was sustained by the lower court, which decision was reversed by the Supreme Court of Canada, but jurisdiction of the controversy has been taken by the Privy Council, the highest appellate tribunal in the British Empire, and there this Canadian litigation is still pending, undisposed of.

Our disposition is not to respond piecemeal to attacks but to await orderly opportunity to be heard. It seemed to us, however, that these statements and insinuations, which concern not only our organization but the Department of Justice as well, required early answer and the bringing before interested Senators of unanswerable refutations written in the records of the United States Federal courts. It had not appeared to us fair to the Senators themselves that they should feel impelled to continue a long course of examination assuming things to be true which were untrue when the truth could be so easily demonstrated by court records and so easily brought to their early attention.—*Extracts, see 2, p. 128.*

The 71st Congress

Duration of the 70th Congress, March 4, 1929-March 4, 1931

First, or "Special" Session, Convened April 15, 1929. Adjourned November 22, 1929

Second, or "Long" Session, Began December 2, 1929.

In the Senate Membership Total—96

53 Republicans 39 Democrats
1 Farmer-Labor
2 Vacancies

Presiding Officer

President: Charles Curtis, R.
Vice-President of the United States

In the House Membership Total—435

267 Republicans 165 Democrats
1 Farmer-Labor
3 Vacancies

Presiding Officer

Speaker: Nicholas Longworth, R.
Member of the House from Ohio

Floor Leaders

Majority Leader *Minority Leader*
James E. Watson, Ind., R. Joseph T. Robinson, Ark., D.

Floor Leaders

Majority Leader *Minority Leader*
John Q. Tilson, Conn., R. John N. Garner, Tex., D.



The Coming Month in Congress

By Norborne T. N. Robinson



WITH the tariff bill passed by the Senate on March 24, and the House deciding to send it to conference, the decks were cleared at the beginning of April for prompt action by both Houses on a number of measures which leaders in Congress wish to see disposed of before the adjournment of the present session.

It is generally estimated at the Capitol that it will take the conference committee on the tariff bill from four to six weeks to iron out the differences between the bill as originally passed by the House on May 27, 1929, and as passed by the Senate. The conservative view is that the bill should come from conference about the middle of May.

Thus April and half of May appear likely to be devoted to other legislation. Members of both Houses are anxious to wind up the session in June in order that all the House members and the one-third of the Senate members facing elections this year may have time to attend to their campaigning.

At the beginning of April the status of important legislation before Congress was as follows:

Appropriations

The House had passed eight of the annual supply bills, namely, those making appropriations for the Department of the Interior, the Department of Agriculture, the War Department, the Treasury and Post Office Departments; the Departments of State, Justice, Commerce and Labor, Independent Offices, the First Deficiency Bill and the District of Columbia Bill.

The remaining supply bills on the House list are the Naval Appropriation Bill, held up to await the outcome of the London Naval Conference; and the Legislative Bill, carrying appropriations for Congress itself and, if necessary, a Second Deficiency Bill, to contain items that may have been overlooked in other appropriation bills or which may have been made necessary by subsequent developments.

Of the eight supply bills passed by the House, two had been passed by the Senate on April 1; the First Deficiency Bill and the Department of Agriculture Appropriation Bill.

Agriculture

Aside from the agricultural provisions of the Tariff

bill and the good roads bill, the agricultural interests of the country have no special legislation before Congress at this session, although they are interested in the Muscle Shoals resolution.

Bus Lines

The bill providing for the control, by the Interstate Commerce Commission, of interstate bus lines and containing regulations for such services, had passed the House and was before the Senate Committee on Commerce.

Good Roads

Both Houses had passed the good roads bill, increasing the appropriation for roads from \$75,000,000 to \$125,000,000, in round numbers, annually for the next three years. Owing to differences between the House and Senate bills, the bill is in conference but no great trouble is anticipated on the part of the conferees in agreeing on a bill that will be acceptable to both Houses.

Lobbies

The lobby investigation by a subcommittee on the Senate Committee on the Judiciary, begun at the opening of the present session, is continuing without prospect of a final report at this session of Congress.

Muscle Shoals

The resolution of Senator George W. Norris, Neb., R., providing for operation by the Government of a power plant at Muscle Shoals for the production of power and for experimentation in the production of nitrates for fertilizer, followed the tariff bill as the unfinished business of the Senate.

It was expected that the Norris resolution, with a few amendments, would be passed promptly by the Senate. Its passage by the House at this session is, however, problematical on account of the more pronounced opposition to Government operation generally in the House than in the Senate.

The May number of THE CONGRESSIONAL DIGEST will deal in detail with the Muscle Shoals problem.

Prohibition

Prospects for prohibition legislation have not changed during the past month. Although various measures have been discussed, either in committee, or on the floor of the Senate and the House by individual Senators and Representatives, action has been taken on only one measure—the bill to transfer the prohibition unit from the Treasury Department to the Department of Justice.

On April 1, this bill, having passed the House, was before the Senate Committee on the Judiciary. It is expected to be reported by that committee and passed by the Senate soon after the Senate disposes of the Muscle Shoals resolution.

This is the only prohibition measure on the program of the House and Senate leaders for passage at this session. (See March, 1930, issue of THE CONGRESSIONAL DIGEST.)

Naval Cruisers

Under the provisions of the Fifteen Cruiser bill, passed by Congress in February, 1929, the United States Navy was authorized to construct, at a total cost of \$274,000,000, fifteen cruisers in order to bring the Navy up

to the status in cruiser tonnage it is entitled to under the Washington Treaty of 1922.

The Naval Appropriation bill of last year carried an item sufficient to pay for the construction of five of these cruisers. Three are in the course of construction, but two of those allotted for last year have been held up in the hope of reductions being agreed to by the London Conference. According to the original program, five more cruisers are to be appropriated for this year and five more next year.

On account of the London Conference the Naval Appropriation bill was held back this year and will not be reported by the House Committee on Appropriations until after a decision has been arrived at in London.

Public Buildings

With a view of aiding in keeping down unemployment the Administration recommended an increase in the appropriations for the construction of Federal buildings. The result was the passage by both Houses of a public buildings bill authorizing the expenditure of \$330,000,000 for public buildings. Senate amendments to the House bill sent this measure to conference, but a prompt agreement is looked for.

Leaders Map Out Program

With this legislative situation in mind leaders in both Houses are at work on programs that will enable them to finish up their work some time in June. The situation in the House is much more favorable for speedy action than in the Senate. In the first place, the Republicans have a safe working majority in the House and can always count on sufficient support to put through any program the majority party leaders decide upon.

Furthermore, the House rules enable the controlling party to limit debate and thus bring measures to a vote more promptly.

Senate Plans for Adjournment

The long time taken by the Senate for consideration of the tariff bill enabled the House to dispose of most of the legislation on its program, with the result that the decks are well cleared in the lower branch.

With the tariff bill out of the way, however, the Senate leaders have settled down to a determined effort to work out a program that will bring about an adjournment by June. Following the disposition of Muscle Shoals, it is expected that the bill transferring the prohibition unit from the Treasury to the Department of Justice will be brought in.

Debate on Prohibition

This will, of course, be signalled by a lively debate on the general question of prohibition, but the debate will not be permitted to last long enough to endanger adjournment. While it is going on, action on appropriation bills and various pieces of minor legislation sent over from the House and conference reports will be sandwiched in.

In view of the fact that primary elections will be going on all over the country during the summer months Senators and Representatives, as soon as the tariff bill comes from conference, will be anxious to have a final vote on it and go home to face their constituencies.

Action Taken by Congress

A Daily Summary of the Proceedings of the House and Senate

January 21, 1930 to February 20, 1930

Note—This department contains a record of action on the floor of the House and the Senate. By following it from month to month the reader obtains a compact but complete review of the work actually done by Congress throughout the session. The principal abbreviations used are the following: H. R. means House bill; H. Res. means House Resolution; H. J. Res. means House Joint Resolution; H. Con. Res. means House Concurrent Resolution; S. means Senate Bill; S. Res., Senate Resolution; S. J. Res., Senate Joint Resolution, and S. Con. Res., Senate Concurrent Resolution. If reference is made to the consideration or action by the Senate of a House bill or resolution, it means that the House has passed it and sent it to the Senate, and vice versa.

Friday, February 21, 1930

Senate:

Discussed the business of the present session of Congress.
Resumed consideration of H. R. 2667, the tariff bill.
Messrs. Trammell, Fla., D., Howell, Nebr., R., Walsh, Mass., D., Blaine, Wis., R., George, Ga., D., Wheeler, Mont., D., and others spoke on the bill.
Executive session.
Messrs. Norris, Nebr., R., Dill, Wash., D., and others discussed the Federal Radio Commission.
Recessed.

House:

Representative Treadway, Mass., R., spoke on the accomplishments of President Hoover, as Secretary of Commerce and also as President for one year.
Representative Howard, Nebr., D., and others spoke on the request of the Coast Guard that recruits were needed.
Representative Mead, N. Y., D., spoke on prohibition in China.
Representative Lankford, Va., D., spoke on the historical colonial monuments in Virginia.
Resumed consideration of and passed H. R. 9979, the first deficiency appropriation bill.
Representatives Wason, N. H., R., Johnson, S. D., R., and others spoke on the bill.
Agreed to H. Res. 105, electing Representative Kinzer, Pa., R., a member of the House Committee on Census, Claims and Roads.
Agreed to H. Res. 166, electing Representative Granfield, Mass., D., a member of the House Committee on Military Affairs.
Accepted the resignation of Representative Granfield, Mass., D., as a member of the House Committee on Claims, Indian Affairs, and Labor.
Adjourned.

Saturday, February 22, 1930

Senate:

Mr. Vandenberg, Mich., R., read Washington's Farewell address.
Recessed until Monday, February 24, 1930.

House:

Representative Tilson, Conn., R., and William Tyler Page, spoke on the George Washington Bicentennial Celebration.
Representative Moore, Va., spoke on some work of Washington in his home country.
Representative Moore, Ohio, R., spoke on Washington as a Pioneer.
Representative McSwain, S. C., D., spoke on Washington as a Soldier.
Representative Luce, Mass., D., spoke on Washington and the Constitution.
Representative Cramton, Mich., R., spoke on Washington and the Potomac.
Representative Temple, Pa., R., spoke on Washington's place among his contemporaries.
Adjourned until Monday, February 24, 1930.

Monday, February 24, 1930

Senate:

Resumed consideration of H. R. 2667, the tariff bill.
Messrs. George, Ga., D., Smoot, Utah, R., Steiwer, Oreg., R.,

Barkley, Ky., D., and others spoke on the bill.

Mr. McKellar, Tenn., D., spoke with reference to an article which appeared in the Washington Star on "The First Year of the Hoover Administration."

Messrs. Copeland, N. Y., D., Smoot, Utah, R., George, Ga., D., and others discussed the tariff bill.
Passed several bridge bills.
Recessed.

House:

Representative Coyle, Pa., R., Dallinger, Mass., R., and Brumm, Pa., R., spoke on the smoke smudge nuisance in the National Capital.
Representative Dallinger, Mass., R., spoke on the vote of the Democratic members of the House on the Fordney protective tariff bill and the Hawley tariff bill and "The Promise to Chairman Raskob."
Representative Maas, Minn., R., spoke on the proposed investigation of post office building rentals which, he stated, might have considerable bearing on postal deficits.
Agreed to H. Res. 153, for the consideration of S. J. Res. 117, to provide relief for farmers in the storm, flood and drought stricken areas and passed with amendments the joint resolution.
Representative Black, N. Y., D., discussed the delay of tariff legislation.
Adjourned.

Tuesday, February 25, 1930

Senate:

Discussed the conditions in Klamath Falls Indian Reservation in Oregon.
Mr. Glass, Va., D., and others spoke on the President of the United States and appropriations made by Congress.
Agreed to House amendments to S. J. Res. 117, for the relief of farmers in certain storm, flood and drought stricken areas.
Resumed consideration of H. R. 2667, the tariff bill.
Messrs. Smoot, Utah, R., Fletcher, Fla., D., Smith, S. C., D., Walsh, Mass., D., Simmons, N. C., D., and others spoke on the bill.
Executive session.
Adjourned.

House:

Representative Sproul, Ill., R., spoke in defense of post office losses in Chicago.
Representative O'Connor, La., D., spoke on the Cottonseed Oil Trust.
Discussed H. R. 9993, to prohibit the use of oleomargarine in Soldiers' Homes and Government Hospitals.
Representative Browne, Wis., R., spoke on the bill.
Adjourned.

Wednesday, February 26, 1930

Senate:

Passed H. J. Res. 223, providing for an appropriation of \$25,000 for the participation by the United States in the International Conference for Codification of International Law in 1930.
Messrs. Norris, Nebr., R., Dill, Wash., D., and others spoke on the Power Trust by the Federal Trade Commission.
Resumed consideration of H. R. 2667, the tariff bill.
Messrs. Norris, Nebr., R., Smoot, Utah, R., Copeland, N. Y.,

D., Walsh, Mass., D., Black, Ala., D., George, Ga., D., and others spoke on the bill.

Messrs. Heflin, Ala., D., Nye, N. D., R., and others discussed speculation in cotton and grain exchanges.

Recessed.

House:

Representative Sears, Nebr., R., and others spoke on Flood Control.

Representatives McKeown, Okla., D., Driver, Ark., D., and others spoke on the merger of oil companies.

Discussed a proposed amendment to the Federal Reserve Act.

Adjourned.

Thursday, February 27, 1930

Senate:

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Jones, Wash., R., Nye, N. D., R., Norbeck, S. D., R., Walsh, Mass., D., Steiwer, Oreg., R., McNary, Oreg., R., Norris, Nebr., R., Dill, Wash., D., and others spoke on the bill.

Recessed.

House:

Passed several bridge bills.

Passed 110 bills on private calendar.

Adjourned.

Friday, February 28, 1930

Senate:

Mr. McKellar, Tenn., D., spoke on the London Naval Conference.

Mr. Blaise, Wis., R., spoke on Crime Conditions in the District of Columbia.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Thomas, Okla., D., ? ? ? Wash., D., Goff, W. Va., R., Copeland, N. Y., D., Sheppard, Tex., D., Pine, Okla., R., Tydings, Md., D., Hatfield, W. Va., R., Allen, Kans., R., Bratton, N. Mex., D., and others spoke on the bill.

Recessed.

House:

Representative McClintic, Okla., D., spoke on unemployment in the Oklahoma oil fields.

Discussed H. Con. Res. 20, on religious prosecution in Russia.

Representative Schaffer, Wis., R., spoke on lobbying activities.

Representative LaGuardia, N. Y., R., spoke on the American Merchant Marine.

Passed H. R. 9553, H. R. 7998 and H. R. 8361, pertaining to the merchant marine.

Adjourned.

Saturday, March 1, 1930

Senate:

Resumed consideration of H. R. 2667, the tariff bill.

Mr. Goff, W. Va., R., spoke in criticism of the attitude of the Senate coalition in the tariff bill.

Recessed until Monday, March 3, 1930.

House:

Administered the oath of office to Representative Finley, Ky., R., elected recently to succeed Mr. Robinson, who was elected to the Senate.

Passed, by a vote of 180 to 127, H. R. 9592, to give preference to steamship lines purchased from the United States Shipping Board in the award of ocean mail contracts.

Adjourned until Monday, March 3, 1930.

Monday, March 3, 1930

Senate:

Mr. Wagner, N. Y., D., spoke on unemployment in the United States.

Messrs. George, Ga., D., and Swanson, Va., D., spoke against the withdrawal of American delegates from the London Naval Conference.

Discussed the proposed investigation of the Federal Farm Board.

Agreed to S. Res. 220, for an investigation of the oil situation in Montana.

Messrs. LaFollette, Wis., R., Couzens, Mich., R., Brookhart, Iowa, R., and others spoke on unemployment and alleged communistic raids.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Shortridge, Calif., R., Ransdell, La., D., Hebert, R. I.,

R., Simmons, N. C., D., Hayden, Ariz., D., Steiwer, Oreg., R., Smoot, Utah, R., Fletcher, Fla., D., and others spoke on the bill.

Held night session for further consideration of tariff.

Recessed as a mark of respect to the memory of Hon. James A. Hughes, late a representative from West Virginia.

House:

Conducted routine morning business.

Adjourned as a mark of respect to the memory of Hon. James A. Hughes, late a representative from West Virginia.

Tuesday, March 4, 1930

Senate:

Mr. Fess, Ohio, R., spoke on President Hoover's Administration.

Mr. Wheeler, Mont., D., spoke on the findings of the Interstate Commerce Commission in regard to the Federal Power Commission.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. George, Ga., D., Swanson, Va., D., Harrison, Miss., D., Walsh, Mont., D., and others spoke on the bill.

Held night session for further consideration of the tariff bill.

Recessed.

House:

Passed several bills on the consent calendar.

Passed H. R. 8569, authorizing the Postmaster General to issue additional receipts or certificates of mailing to senders of any class of mail matter and to fix the fee chargeable therefor.

Passed S. 2093, authorizing an appropriation of \$1,660,000 for the relief of Alabama for damage to and destruction of roads and bridges by floods in 1929.

Passed, with amendments, by a vote of 235 to 17, S. 15, the Civil Service Retirement Bill.

Adjourned.

Wednesday, March 5, 1930

Senate:

Passed S. 2828, authorizing commissioners or members of international tribunals to administer oaths, to subpoena witnesses and records, and to punish for contempt.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Vandenberg, Mich., R., Broussard, La., D., Phipps, Colo., R., Caraway, Ark., D., Bingham, Conn., R., Howell, Nebr., R., Smoot, Utah, R., and others spoke on the bill.

Passed H. J. Res. 210, authorizing an appropriation of \$15,000 for the expenses of official delegates of the United States to the World's Fourth Poultry Congress to be held in England in 1930.

Messrs. Dale, Vt., R., Couzens, Mich., R., and McKellar, Tenn., D., were appointed conferees on S. 15, the Civil Service Retirement bill.

Continued debate on the tariff bill at the night session.

Recessed.

House:

Discussed H. R. 9683 to amend the Federal Reserve Act, making slander concerning national banks a Federal offense.

Passed H. R. 9046, amending the Federal Reserve Act, providing new loaning power of Federal reserve member banks.

Adjourned.

Thursday, March 6, 1930

Senate:

Messrs. Moses, N. H., R., and Fletcher, Fla., D., were appointed members of the joint select committee for disposition of Useless Papers in the Government Printing Office.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Howell, Nebr., R., Blaine, Wis., R., Walsh, Mass., D., Smith, S. C., D., Thomas, Idaho, R., Steiwer, Oreg., R., Pittman, Nev., D., Hayden, Ariz., D., and others spoke on the bill.

Received the announcements of the death of Hon. James P. Glynn, late a Representative from Connecticut.

Recessed as a further mark of respect to the memory of the late Representative Glynn.

House:

Representative Tilson, Conn., R., announced the death of Hon. James P. Glynn, late a Representative from Connecticut.

The speaker of the House, under H. Res. 181, appointed a committee of 24 to attend the funeral.

Adjourned as a further mark of respect to the late Representative Glynn.

Friday, March 7, 1930

Senate:

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Kean, N. J., R., McMaster, S. D., R., Barkley, Ky., D., Pittman, Nev., D., Hatfield, W. Va., R., Blaine, Wis., R., Grundy, Pa., R., and others spoke on the bill.

Passed H. J. Res. 205, providing for an appropriation of \$30,000 for the expenses of participation by the United States in the International Fur Trade Exhibition to be held in Germany in 1930.

Messrs. Fess, Ohio, R., Howell, Nebr., R., and McKellar, Tenn., D., were appointed conferees on S. 3168, the Mount Vernon-Arlington Memorial Bridge Highway bill.

Messrs. Copeland, N. Y., D., Barkley, Ky., D., Smoot, Utah, R., George, Ga., D., and others spoke at the night session on H. R. 2667, the tariff bill.

Recessed.

House:

Passed, as amended, S. 3168, the Mount Vernon-Memorial Highway bill.

Passed S. J. Res. 109, extending for two years the time within which American claimants may make application for payment, under the settlement of war claims act of 1928, of awards of the Mixed Claims Commission and of the Tripartite Claims Commission.

Representative Walker, Ky., R., spoke in favor of the reduction of the war tax on tobacco.

Representative Bachmann, W. Va., R., urged legislation to provide additional Federal judges in the State and Federal districts to relieve the congestion brought about by prohibition cases.

Representative Sirovich, N. Y., D., advocated an international board, composed of representatives of all manufacturing nations, to control rigidly under governmental supervision the production and manufacture of opium and its derivatives.

Representative Doughton, N. C., D., spoke on the Federal reserve act as a "masterpiece of financial legislation."

Representative Johnson, Nebr., R., spoke on water conservation and flood control.

Agreed to H. Res. 172, providing for the consideration of H. R. 10288, the motor bus bill.

Adjourned until Monday, March 10, 1930.

Saturday, March 8, 1930

Senate:

Agreed to House amendments to S. J. Res. 109, for the awards of Mixed Claims and Tripartite Claims Commission.

Mr. Walsh, Mass., D., spoke in tribute of Mr. Justice Holmes on his eighty-ninth birthday.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Goff, W. Va., R., Barkley, Ky., D., and others spoke on the bill.

Executive session.

Recessed, until Monday, March 10, 1930.

House:

The House was not in session.

Monday, March 10, 1930

Senate:

Mr. Brock, Tenn., D., announced the death of Mr. Justice Sanford.

Agreed to S. Res. 230, expressing the regret and profound sorrow of the Members of the Senate at the death of Mr. Justice Sanford.

Mr. Watson, Ind., R., announced the death of Hon. William Howard Taft, former President and Chief Justice of the United States.

Agreed to S. Res. 231, expressing the regret and profound sorrow of the Members of the Senate at the death of Mr. Taft, and providing for the appointment of 20 members of the Senate to attend the funeral.

In respect to the memory of the deceased, recessed, until Wednesday, March 12, 1930.

House:

Received the announcement of the death of Hon. Edward Terry Sanford, Associate Justice of the Supreme Court of the United States.

Agreed to H. Res. 182, expressing the sorrow of the House at the death of Mr. Justice Sanford.

Representative Longworth, Ohio, R., announced the death of Hon. William Howard Taft, former President and Chief Justice of the United States.

Agreed to H. Res. 173, expressing the sorrow of the House of Mr. Taft, and providing for the appointment of a committee of the House to join with the Senate to attend the funeral of Mr. Taft.

Adjourned, as a further mark of respect to the memory of Mr. Taft and Mr. Sanford, until Wednesday, March 12, 1930.

Wednesday, March 12, 1930

Senate:

Messrs. Nye, N. D., R., and Pittman, Nev., D., were appointed members of the joint select committee for disposition of useless papers in the Interior Department.

Passed H. R. 9979, making appropriations to supply urgent deficiencies in certain appropriations.

Passed several bridge bills.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Smoot, Utah, R., Hatfield, W. Va., R., Barkley, Ky., D., Patterson, Mo., R., McMaster, S. D., R., Grundy, Pa., R., Oddie, Nev., R., and others spoke on the bill.

Passed S. J. Res. 151 authorizing the Secretary of the Interior to deliver water during the irrigation season of 1930 on the Uncompahgre projects.

Passed S. 3579, authorizing per capita payments to the Shoshone and Arapahoe Indians of Wyoming.

Considered the tariff bill at the night session.

Recessed.

House:

Began consideration of H. R. 10288, to regulate the transportation of persons in interstate and foreign commerce by motor carriers operating on the public highways.

Representatives Parker, N. Y., R., Nelson, Me., R., Denison, Ill., R., Wolverton, N. J., R., and others spoke on the bill.

Adjourned.

Thursday, March 13, 1930

Senate:

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Smoot, Utah, R., Thomas, Okla., D., Harrison, Miss., D., Heflin, Ala., D., Goldsborough, Md., R., Shortridge, Calif., R., Walsh, Mont., D., Walsh, Mass., D., and others spoke on the tariff bill.

Held night session for further consideration of the tariff bill.

Recessed.

House:

Resumed consideration of H. R. 10288 to regulate the transportation of persons in interstate and foreign commerce by motor carriers operating on the public highways.

Representatives Mapes, Mich., R., Mead, N. Y., D., Garber, R., and others spoke on the bill.

Adjourned.

Friday, March 14, 1930

Senate:

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Bingham, Conn., R., Simmons, N. C., D., Fletcher, Fla., D., Dale, Vt., R., Oddie, Nev., R., Walsh, Mass., D., and others spoke on the bill.

Messrs. Jones, Wash., R., Hale, Me., R., Phipps, Colo., R., Overman, N. C., D., and Glass, Va. D. were appointed conferees on H. R. 9979, the first-deficiency appropriation bill.

Held night session for further discussion of the tariff bill.

Recessed.

House:

Representatives Wood, Ind., R., Cramton, Mich., R., Wason, N. H., D., Byrns, Tenn., D., and Buchanan, Tex., D., were appointed conferees on H. R. 9979, the first deficiency appropriation bill.

Continued on page 127

EXECUTIVE DEPARTMENT

The White House Calendar

February 21 to March 21

Executive Orders

February 21—An executive order designating Fort Pierce, Florida, as a customs port of entry.

February 25—An executive order for the withdrawal of certain public lands in Nevada for resurvey.

March 4—An executive order reserving certain tracts situated within forty different villages in Alaska for educational purposes.

March 5—An executive order creating public water reserve 130, Nevada 21.

March 5—An executive order abolishing Newbern and Manteo, N. C., as customs collections districts, ports of entry.

March 5—An executive order amending Consular Regulations of 1896.

March 5—An executive order for the restoration of public water reserve 63, Montana 11.

March 6—An executive order cancelling Chapter XX, of Instructions to Diplomatic Officers and substituting a new chapter therefor, establishing monthly accounts for diplomatic officers.

March 11—An executive order extending trust period on allotments made to members of the Prairie Band of Potawatami Indians in Kansas for ten years.

March 11—An executive order relating to licensing of motor vehicles in the Canal Zone, etc.

March 13—An executive order extending trust period on allotments made to Indians of the Rosebud Reservation, South Dakota.

March 13—An executive order extending trust period on certain allotments made to Indians of the Crow Reservation, Montana.

March 13—An executive order extending trust period on certain allotments made to Indians of the Devils Lake Reservation, North Dakota.

March 19—An executive order extending trust period on allotments to Indians of the Seneca Tribe in Oklahoma.

March 19—An executive order extending trust period on allotments made to Indians of the Nez Perce Tribe in Idaho.

March 20—An executive order including certain lands in the Fish Lake National Forest, Utah.

March 21—An executive order reserving, for military purposes, land in the municipality of Malabang, Province of Lanao, P. I.

Proclamations

March 5—A proclamation of the conventions and protocol for the abolition of Import and Export Prohibitions and Restrictions.

March 8—Proclamation announcing to the people the death of Hon. William Howard Taft, former President and Chief Justice of the United States.

Messages to Congress

February 21—A communication from the President of the United States transmitting supplemental estimates of appropriation, amounting to \$10,280, for the Library of Congress.

February 21—A communication from the President of the United States transmitting draft of proposed legislation affecting the use of an existing appropriation for the Treasury Department.

February 21—A communication from the President of the United States transmitting supplemental estimate of appropriation amounting to \$12,000,000 for the War Department.

March 1—A communication from the President of the United States transmitting supplemental estimate of appropriation pertaining to the legislative establishment under the Public Printer, amounting to \$2,100.

March 4—A communication from the President of the United States transmitting supplemental estimate of appropriations for the District of Columbia, amounting to \$684,300.

March 10—A communication from the President of the United States transmitting supplemental estimate of appropriation amounting to \$100,000,000, as a part of the revolving fund of \$500,000,000, for the Federal Farm Board.

March 17—A communication from the President of the United States transmitting a supplemental estimate of appropriation of \$25,000 for the Department of State for participation of the United States by means of delegates in the International Conference for the Codification of International Law, at The Hague, in March, 1930.

Important Civilian Appointments

February 22—Sardius Mason Brewster, of Kansas, to be U. S. attorney, district of Kansas.

February 24—John C. McBride, of Juneau, Alaska, to be collector of customs for customs collection district No. 31, with headquarters at Juneau, Alaska.

February 25—H. Percival Dodge, of Massachusetts, to be a Foreign Service officer of Class 1, of the United States.

February 26—Clint W. Hager, of Georgia, to be U. S. attorney, northern district of Georgia.

February 26—Charles Hanratty, of Delaware, to be U. S. marshal, of Delaware.

February 26—Marion O. Dunning, of Savannah, Ga., to be collector of customs for customs collection district No. 17, with headquarters at Savannah, Ga.

February 26—Fannie Sutton Faison, of Faison, N. C., to be collector of customs for customs collection district No. 15, with headquarters at Wilmington, N. C.

March 4—John N. Willys, of Ohio, to be Ambassador of the United States to Poland.

March 4—Charles B. Kennamer, of Alabama, to be

U. S. attorney, northern district of Alabama.

March 4—Edgar C. Geddie, of North Carolina, to be U. S. marshal, eastern district of North Carolina.

March 5—Arthur Arnold, of West Virginia, to be U. S. attorney, northern district of West Virginia.

March 5—Frank Lee, of Oklahoma, to be U. S. attorney, eastern district of Oklahoma.

March 5—James A. Cobb, of the District of Columbia, to be a judge of the municipal court, District of Columbia.

March 7—Edward M. Kent, to be constructor in the United States Coast Guard.

March 15—Randolph Bryant, of Texas, to be U. S. attorney, eastern district of Texas.

March 15—Donald J. Hunt, Eddie Monroe Gordon, Jr., and Willard E. Kramer, to be assistant surgeons in the Public Health Service.

March 19—Edward J. Sparks, of New York, to be secretary in the Diplomatic Service of the United States.

Action Taken by Congress

Continued from page 125

Representative Nelson, R., spoke on the Philippines and the Japanese bugaboo.

Representative Garner, Tex., D., spoke on the United States Steel Corporation tax refunds.

Resumed consideration of H. R. 10288, the motor bus bill.

Representatives Rankin, Mis., D., Moore, Va., D., Johnson, Ind., R., Denison, Ill., R., and others spoke on the bill.

Adjourned until Monday, March 17, 1930.

Saturday, March 15, 1930

Senate:

Discussed H. R. 2667, the tariff bill.

Recessed, until Monday, March 17, 1930.

House:

The House was not in session.

Monday, March 17, 1930

Senate:

Agreed to conference report on H. R. 9979, the first deficiency appropriation bill.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Howell, Nebr., R., Walsh, Mass., D., Goldsborough, Md., R., Vandenberg, Mich., R., Swanson, Va., D., Goff W. Va., R., Smoot, Utah, R., Blease, S. C., D., and others spoke on the bill.

Executive session.

Held night session for further consideration of the tariff bill.

Recessed.

House:

Received the conference report on H. R. 9979, the first deficiency bill.

Representatives Tilson, Conn., R., Dowell, Iowa, R., and Moore, Va., D., were appointed conferees on S. 3168, the Memorial highway to connect Mount Vernon with Arlington memorial bridge.

Passed several bills on the consent calendar.

Adjourned.

Tuesday, March 18, 1930

Senate:

Mr. Fess, Ohio, R., spoke on Federal patronage in southern States.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Cutting, N. Mex., R., Barkley, Ky., D., Trammell, Fla., D., and others spoke on the bill.

Held night session for further discussion of the tariff bill.

Recessed.

House:

Agreed to Senate amendments to H. J. Res. 205, providing for participation of the United States in the International Fur

Trade Exhibition and Congress.

Representative Howard, Nebr., D., spoke on the rules of the House.

Representative Eaton, N. J., R., spoke on "America in a World Age."

Representative Bacharach spoke on tax refunds of the United States Steel Corporation.

Resumed consideration of H. R. 10288, the motor bus bill.

Adjourned.

Wednesday, March 19, 1930

Senate:

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Thomas, Okla., D., Pittman, Nev., D., Robinson, Ind., R., and others spoke on the bill.

Recessed.

House:

Passed several bills on the calendar.

Began debate on the conference on H. R. 9979, the first deficiency bill.

Received the conference report on S. 3168, the Mount Vernon Memorial Highway bill.

Adjourned.

Thursday, March 20, 1930

Senate:

Passed S. J. Res. 143, creating a commission to prepare plans for a monument in the city of Washington commemorating the achievement of Orville and Wilbur Wright in the development of aviation and appropriating \$10,000 or the part thereof needed for the expenses of the commission.

Resumed consideration of H. R. 2667, the tariff bill.

Messrs. Jones, Wash., R., Nye, N. D., R., Walsh, Mass., D., Smoot, Utah, R., Goff, W. Va., R., Capper, Kans., R., Hatfield, W. Va., R., and others spoke on the bill.

Recessed.

House:

Representatives Wood, Ind., R., Cramton, Mich., R., Wason, N. H., R., Byrns, Tenn., D., and Buchanan, Tex., D., were appointed conferees on H. R. 9979, the first deficiency bill.

Discussed the tariff bill.

Representative Montet, La., R., spoke on farm relief.

Representative Hawley, Oreg., R., spoke on tax refunds of the United States Steel Corporation.

Resumed consideration of H. R. 19288, for the regulation of motor-bus carriers.

Representatives Hastings, Okla., D., Denison, Ill., R., and others spoke on the bill.

Representative Nolan, Minn., R., spoke on Inland Waterways and the proposed 9-foot channel on the Upper Mississippi.

Adjourned.

Chronology of the Development of Communication by Wire and Wireless

(Continued from page 100)

On November 9, the Fourth National Radio Conference was held in Washington.

1927—January 7, transatlantic telephone service was established between New York and London.

1927—On February 23, the Radio Act of 1927, passed

by Congress, was approved by the President.

1929—A merger of the British radio and cable interests was brought about.

1929—Commercial ship-to-shore telephone service was established.

Pro

GENERAL JAMES G. HARBORD—Continued

(Continued from page 117)

understood these needs and sometimes has seemed to aid those who would keep radio in bondage. Radio's record of service done and service attempted deserves at the hand of the Government of the United States the same understanding and aid foreign governments are giving their radio organizations.

As a measure well adapted to release radio from

domination at home, I specifically recommend that into whatever law may be enacted there be written a compulsory requirement that all carriers subject to the act furnish other carriers through routes and provide reasonable facilities for operating through routes. I urgently recommend, however, that this requirement be made compulsory without condition.

Statement of Ownership

(Required by Act of Congress, August 24, 1912)

Of THE CONGRESSIONAL DIGEST, published monthly (except for months of July and August), at Washington, D. C., for April 1, 1930.

Before me, a Notary Public in and for the District of Columbia, City of Washington, personally appeared Alice Gram Robinson who, having been duly sworn according to law, deposes and says she is the Editor, Publisher and Owner of THE CONGRESSIONAL DIGEST and that the following is, to the best of her knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in Section 443, Postal Laws and Regulations, to-wit:

1. That the name and address of the publisher, editor, man-

aging editor, and business manager is: Alice Gram Robinson, Munsey Building, Washington, D. C.

2. That the owner is: Alice Gram Robinson, Munsey Building, Washington, D. C.

3. That the known bondholders, mortgagors, and other security holders owning or holding one per cent or more of total amount of bonds, mortgages, or other securities are (if there are none, so state). None.

N. T. N. ROBINSON,
Signature of Editor.

SWORN to and subscribed before me this first day of April, 1930.

FRANK E. ELDER, Notary Public.
My commission expires April 23, 1931.

Sources from Which Material in This Number Is Taken

Articles for which no source is given have been specially prepared for this number of THE CONGRESSIONAL DIGEST

1. Early Indiana Trials and Sketches, by the Hon. O. H. Smith.

2. Hearings Before Senate Committee on Interstate Commerce, May 8, 1929, to February 8, 1930.

Back Numbers of the Digest Still Available

Vol. III

October, 1923-September, 1924

Congress and the Railroads
How a New Congress is Organized
Reorganization of U. S. Foreign Service
The Sterling-Reed Education Bill
The Woman's "Equal Rights" Amendment
Immediate Philippine Independence
The McNary-Haugen Agricultural Bill
Peace Proposals Before 68th Congress
Political Parties and Issues of 1924
Developing Our Inland Waterways

Vol. IV

October, 1924-December, 1925

The Dawes Plan for German Reparation Payments
Repeal of Federal Income Tax Publicity Law
National Defense and the Limiting of Naval Armament
Postal Pay and Rate Issue
Congress and Cooperative Marketing
Congress and the Coal Problem
Federal Estate Tax Repeal

Vol. V

January-December, 1926

American Merchant Marine
The United States and the World Court
The McFadden Banking Bill
Should United States Adopt Metric System
Congress and Prohibition Enforcement
Changing Sessions of Congress and Inauguration Day
Cloture in the U. S. Senate
Settlement of U. S. and German War Claims

Vol. VI

January-December, 1927

St. Lawrence vs. New York Shipway
The Boulder Dam Project
The Problem of Railroad Consolidations

U. S.-Nicaragua Controversy
The Problem in China
Uniform Marriage and Divorce Law
Question of Capital Punishment
The Problems of Copyright Reform
Issues Involved in Seating a Senator
The Capital of the United States

Vol. VII

January-December, 1928

The New Congress and the Tax Question
Congress and Mississippi Flood Control
Can War Be Outlawed?
Third Term Controversy
Immigration Problem—1928
Merchant Marine Act—1928
The Presidential Election—1928
The Problem of Radio Reallocation
Uncle Sam and the Movies
What is the Effect of a "Pocket" Veto?

Vol. VIII

January-December, 1929

Should Uncle Sam Build More Cruisers?
Congressional Reapportionment
A New Administration Begins
Should We Have A Thirteenth Month Year?
The Farm Relief Problem—1929
Making A Tariff Law
German Reparations—1929
Limitation of Naval Armaments
Should Our Jury System Be Modified?
Congress and the Lobby Problem

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January-December, 1930

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